NATIONAL CHILD SURVIVAL
AND SAFE MOTHERHOOD PROGRAMME

EVALUATE SERVICE COVERAGE

Ministry of Health and Family Welfare
Government of India
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GOALS AND COMPONENTS OF NATIONAL CHILD SURVIVAL AND SAFE MOTHERHOOD PROGRAMME

GOALS

- **Infant mortality rate** reduced from 80 to 75 by 1995 and 50 by 2000.
- **Child (1-4 years) mortality rate** reduced from 41.2 to < 10 by 2000.
- **Maternal mortality rate** reduced from 400 to 200/100,000 by 2000.
- **Polio eradication** by 2000.
- **Neonatal tetanus elimination** by 1995.
- **Measles** - prevention of 95% deaths and 90% cases by 1995.
- **Diarrhoea** - prevention of 70% deaths and 25% cases by 2000.
- **Acute respiratory infections** - prevention of 40% deaths by 2000.

Components of this package would be:

Children

Newborn care at home - warmth and feeding.
Primary immunization by 12 months - 100% coverage
Vitamin A prophylaxis (9 months to 3 years) - 100% coverage
Pneumonia - Correct case management at home/health facilities.
Diarrhoea - Correct case management at home/health facility; ORS in every village.

Pregnant Women

Immunization against tetanus - 100% coverage
Anaemia prophylaxis and oral therapy - 100% coverage
Ante-natal check-up - at least 3 check-ups in 100%
Referral of those with complications
Care at birth - promotion of **clean** delivery
Birth timing and spacing

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EVALUATE SERVICE COVERAGE

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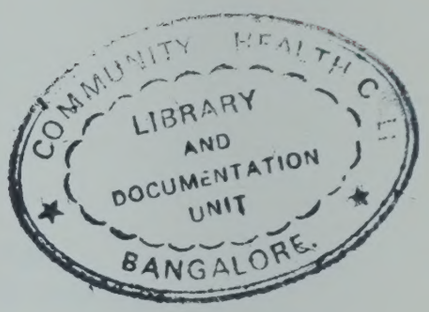

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LIST OF ABBREVIATIONS

ARI	-	Acute Respiratory Infections
HAF	-	Home Available Fluids
ORS	-	Oral Rehydration Solution
ORT	-	Oral Rehydration Therapy
IFA	-	Iron Folic Acid
PRV	-	Private
HOS	-	Hospital
HC	-	Health Centre
OUT	-	Outreach
IUD	-	Intra Uterine Device
TBA	-	Traditional Birth Attendar

EVALUATE SERVICE COVERAGE

INTRODUCTION

Under the Child Survival and Safe Motherhood Programme, various services are provided to mothers and children. Every mother must have a safe pregnancy and delivery and every baby must be assured of a trouble-free birth and survival through the risky early childhood.

This module aims at providing you with skills

- **to conduct a survey to evaluate service coverage, and**
- **to interpret results of the survey for programme management.**

It is important to know whether various services planned and instituted are actually reaching all mothers and children. It is also important to know the quality of services given.

The **coverage surveys for Child Survival and Safe Motherhood services** help to:

- give a true picture of the coverage with select services to the target population;
- cross-check results with your routine reporting system;
- identify areas with good and poor coverage;
- determine whether preventive services are being given at the right age;
- identify positive and negative factors affecting the programme and modify the action plan accordingly; and
- identify the extent to which other non-governmental agencies are participating in the programme to improve coordination in the future.

COMPONENTS OF COVERAGE SURVEYS FOR CHILD SURVIVAL AND SAFE MOTHERHOOD PROGRAMME

1. Coverage of primary immunization of infants.

2. Coverage with first dose of Vitamin A, to prevent Vitamin A deficiency.

3. Correct case management at home level for children suffering from diarrhoea, and access to ORS packets in the village.

4. Ability of mothers to recognize critical symptoms in young children during acute respiratory infections, and seek appropriate care.

5. Coverage of all pregnant women with tetanus toxoid immunization and iron and folic acid supplementation; proportion of pregnant women receiving ante-natal care.

6. Proportion of pregnant women delivered at institutions and attended to by trained personnel.

7. Coverage with services for timing, spacing and limiting births.

Done on a periodic basis (for example, once a year) a coverage evaluation survey will provide you with reliable information which you can use to make changes, if necessary, in your programme activities. You will specifically learn, whether you are meeting your immunization and other programme coverage objectives or not.

IMMUNIZATION

Organizing immunization activity in communities by itself does not guarantee a reduction in disease morbidity and mortality. The **full course** of vaccines must be given at the **right age**, at the **right interval** and vaccines used must be **potent**.

As a programme manager, you will be interested in accurate information on immunization coverage and the reasons when coverage levels are below your expectations. Low coverage is mainly due to:

- **Poor attendance**

- **High drop outs**

If there is poor attendance in the immunization sessions or beneficiaries do not return for the subsequent doses, then you should know the reasons for this. Only then will you be able to take corrective action. This supplementary information is also collected during surveys. In the absence of surveys, you have to rely on health centre records only, which may provide inaccurate or misleading information. For example, health centre records may indicate that 80% of children in a community are being immunized. A coverage evaluation survey may show that 30% of these children have been immunized at the wrong age. You must conduct a field survey to have an accurate idea of how many people are being immunized. This can be done in a systematic way so that only a sample of the population will need to be surveyed to obtain valid results.

Immunization as an activity is not an end in itself. It should lead to immunity against the disease and reduction in morbidity and mortality.

CONTROL OF DIARRHOEAL DISEASES

The mainstay of diarrhoeal diseases control programme is **correct case management.** It has two major components - ability to diagnose dehydration early and **ORAL REHYDRATION THERAPY (ORT).** ORT is the major strategy to control deaths due to diarrhoea during epidemics also. Thus, as a programme manager, you need to know the commonly available fluids in your area which can be given for diarrhoea as **Home Available Fluids.**

The coverage surveys will provide answers on:

- Do family members give **increased amounts of fluids** to a child with diarrhoea?
- Do mothers/family members **continue feeding** a child during diarrhoea?
- Do they have adequate knowledge to **recognize dehydration** in order to seek expert help as required?
- Do they get **ORS packets** whenever required within the village?
- Do they get **ORS packets** whenever required from a health facility?

The answers to the above questions should lead to a better understanding of the status of the programme at the community level. Based on such an understanding, action can be initiated for improvement.

CONTROL OF ACUTE RESPIRATORY INFECTIONS

The major cause of death in children with acute respiratory infections (ARI) is **pneumonia.** Mortality in ARI can be significantly reduced by early detection and treatment of pneumonia.

The key strategy is:

- Early recognition of pneumonia by members of the family and health workers
- Initiating therapy by health workers with cotrimoxazole.

From the coverage survey, we assess the capacity of family members to recognize the danger signs in a case of acute respiratory infection. This would give us information on the effectiveness of our communication, for seeking appropriate therapy in time.

CONTROL OF VITAMIN A DEFICIENCY

Every child in the age group of 9 months to 3 years should receive five mega doses of Vitamin A at 6 monthly intervals to prevent deficiency. Every infant coming for measles vaccine should receive the first dose of 100,000 I.U. of Vitamin A. During the second and third year of life, the child should receive four more doses of 200,000 I.U. of Vitamin A at 6 monthly intervals. As a programme manager, you will be interested in determining whether all children below 3 years in your area are receiving the Vitamin A doses in time. Routine monthly reports provide this information. However, it is important to have an additional source of data for programme management. The coverage survey provides information on the proportion of children who receive the first dose of Vitamin A.

CONTROL OF ANAEMIA IN PREGNANT WOMEN

Anaemia is responsible for deaths in pregnant women. Pregnant women are the most important group that require prophylaxis and treatment with iron and folic acid[1] tablets (IFA). We must ensure that every pregnant woman consumes 100 tablets of iron and folic acid as prophylaxis; and all women with anaemia, diagnosed clinically, should receive and consume 200 tablets of iron and folic acid (one tablet of IFA twice a day). The coverage survey provides information on the proportion of pregnant women who have received prophylactic as well as therapeutic iron and folic acid tablets.

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[1] The national policy on anaemia control provides for the above dose schedule with tablets of iron strength = 100 mg. of elemental iron. Till the 100 mg. elemental iron tablets are available, the programme provides for 200 tablets for prophylaxis and 300 tablets (of 60 mg. elemental iron) for treatment of anaemia.

CARE OF PREGNANT WOMEN

Every pregnant woman will have at least three ante-natal check-ups. This information is available from routine monthly reports. Coverage surveys will also provide data on this for programme managers.

The coverage evaluation surveys provide information on the proportion of women delivered at different places and the proportion delivered by trained birth attendants/personnel.

TIMING, SPACING AND LIMITING BIRTHS

Delaying first pregnancy upto 20 years of age and spacing of births at a minimum of 3 years interval increases child survival and promotes safe motherhood. Under the programme you will promote a two-child norm.

The coverage survey provides information on the proportion of mothers or couples practicing any of the methods for spacing or limiting births.

The service coverage survey also provides information on the age of the immediately elder sibling of the child being assessed for immunization. In case the child being assessed has a younger sibling, you will obtain that information instead. This gives information on the trends of birth spacing in the population. The age of the mother at first pregnancy is also noted.

A note on exercises:

Exercises in this module are organized differently. They are sometimes long, and have not been separated from the text of the module. Answers may be provided for some exercises to save time. Ask your facilitator for help whenever you are unsure about what you are supposed to do.

Additional information can be collected during the survey, which is not part of the service coverage evaluation, but can still provide information for you as a manager of the Child Survival and Safe Motherhood Programme. In this module surveys for (i) the neonatal tetanus and (ii) lame children under 5 years have been included as Annexures II and III.

1.0 PRELIMINARY ACTIVITIES

1.1 IDENTIFY CLUSTERS

The first step for any evaluation process is the systematic collection of data. For an evaluation of immunization coverage as well as coverage with other services, data need to be systematically collected on the number of children and pregnant women immunized (a) by vaccine and select services and (b) by age. The assessment should be done by people who did not perform the immunizations. The method used is the cluster sampling technique. **A cluster is a randomly selected group**. In this case it is a group which has at least 7 children in the age group of 12 to 23 months. The minimum age of children should not be less than one year. For mothers, a group of 7 mothers, each of whom delivered a baby in the last one year, forms a cluster.

The cluster sampling technique allows a small number of the target population to be sampled and provides data which are statistically valid.

A survey containing 30 clusters of 7 children will give you information on what proportion of eligibles are being properly immunized. Statistically it will meet the following standards of reliability:

* The data obtained from the survey will have a level of accuracy of plus or minus 10%. For example, if the survey shows immunization coverage of 70% in the sample, the actual coverage in the target population will be between 60% and 80%.

* 19 out of 20 times the result of the survey will be within the stated level of accuracy. The level of confidence is 95%, which means there is a 95% probability that the survey results will fall within the range listed above (plus or minus 10% of the coverage in the target population).

* The survey data will reflect coverage of a period of 1 year prior to the date of survey

* The results will reflect coverage in the area as a whole. Comparisons between clusters are not valid.

Data will be valid only when the thirty clusters are **randomly selected**. A randomly selected cluster or group is one which is chosen by chance. You will learn from this module how to choose such groups. To do this, you must know how to select a random number. A random number is a number chosen from many numbers, each of which has as much chance of being selected as the number finally chosen. Choosing numbers from memory is not a satisfactory method for selecting random numbers because unconscious biases occur. Certain numbers tend to be selected more frequently than others by certain individuals. If you do not have a table of random numbers you could use the numbers on currency notes. To identify a random number from a currency note, start with the last digit of the serial number.

Under the direction of the course facilitator, **work through the following examples using the serial numbers on currency notes to select random numbers:**

1. Choose a one-digit random number between 1 and 9, both numbers included.

2. Choose a two-digit[2] random number between 01 and 87, both numbers included.

3. Choose a three-digit[3] random number between 001 and 345, both numbers included.

4. Choose a four-digit random number between 0001 and 9,053, both numbers included.

5. Choose a five-digit random number between 0001 and 48,321, both numbers included.

If the random number you select from a currency note is larger than the highest acceptable number, you will have to select another number. You can do this by taking the next 3 digits from the right to left. For instance, in number 3, if you select a number which is more than 345, you will need to choose another random number. For example, if the currency note number was 362515, the first random number would be 515. This number is higher than 345. So you select the next 3 digits - 251, which is within 345.

Please note that the survey methods described in this module will allow you to draw conclusions about the area surveyed as a whole and they *will not permit you to make comparisons between different sub-sections of the total area.* Therefore, if you want to compare, for example, urban with rural areas, or areas using one strategy with areas using some other strategy, you will have to do a separate survey in each area. For the evaluation of Child Survival and Safe Motherhood programme, the district as a whole is taken including the urban and rural areas. While, each individual survey, irrespective of population has the same methodology, the minimum population of the area should be over 50,000. This will allow adequacy of sample size and be cost-effective.

All 30 clusters must be surveyed within a short and defined period of time, ideally within one week. This is necessary to ensure that they accurately represent the same population.

The theories behind *cluster sampling* are statistically valid but complex. What you need to know is how to use the technique and the fact that statisticians agree that it produces useful results.

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2 01 is a two digit number

3 001 is a three digit number

1.2 EXERCISE A

The following guidelines describe the steps for identifying clusters. Refer to the example provided on pages 9 to 13 as you read. You will note that some information is missing from this example (for example, the sampling interval number). In this exercise you will be asked to supply the missing information. Using the instructions given below for completing a cluster identification form, you will identify clusters 1-7 (clusters 8-30 have already been identified).

1. List all villages and sectors/wards of cities and towns included in the area for which service coverage is to be evaluated. This step has already been completed for you. In this exercise the area to be evaluated is district "A" under Child Survival and Safe Motherhood programme. All towns and villages of this district have been listed on cluster identification forms on pages 10 to 13.

2. Against the name of each village or ward, write the individual population of this village or ward. This has been completed for you.

3. Calculate and write in the cumulative population of each village or ward. This is done in the serial order in which the villages or wards are listed. This has already been completed. The total cumulative population of the district is 8,00,000.

4. Determine the sampling interval. Use the formula provided below. Round all decimals off to the nearest whole number.

   $$\frac{\textbf{Total cumulative population}}{\textbf{30 clusters}} = \textbf{Sampling Interval}$$

   Using the above formula, calculate the sampling interval in District 'A': *Enter the number in the space provided at (A) on the bottom of the form on Page 13.*

5. Select a random number which is less than or equal to the sampling interval. The number you select must have the same number of digits as the sampling interval. As your sampling interval in the exercise turns out to be five-digit number, the random number selected must also be a five digit number that is, between 00001 and the sampling interval.

   For the purpose of this module, the random number, 12,762 has already been selected. *Enter this number at (B) on the bottom of the form on page 13.*

6. Identify the community in which Cluster 1 is located. This is done by locating the first village on the form on page 10 in which the cumulative population equals or exceeds the random number. Write "1" beside this village.

7. Identify the community in which Cluster 2 is located. Use the formula provided below.

Random No. + Sampling Interval = _____

Note that the cumulative population listed for that village will equal or exceed the number you obtain by addition.

8. Identify Clusters 3, 4, 5, 6 and 7 (Clusters 8-30 have already been identified). Use the formula provided below:

Number which identifies the location of the previous cluster) + Sampling Interval = _____

Using the data provided in the form write the number of each cluster 1, 2, 3, 4, 5, 6 and 7 besides the appropriate villages on the form at page 10. A single village or town may contain more than one cluster.

If you have completed step 8, discuss with your course facilitator.

CLUSTER IDENTIFICATION FORM
(SAMPLE FORMAT)
CITIES, TOWNS AND VILLAGES OF DISTRICT 'A'

Sl. No.	Name of the Village	Population	Cumulative Population	Cluster No.
1	Rampur	12,888	12,888	--
2	Nankheri	3,488	16,376	--
3	Chopal	6,826	23,202	--
4	Lal Path	4,339	27,541	--
5	Tiara	2,203	29,744	--
6	Nagrota	4,341	34,085	--
7	Chadar	1,544	35,629	--
8	Shapur	885	36,514	--
9	Haripur	2,962	39,476	--
10	Nurpur	4,234	43,710	--
11	Paragpur	1,520	45,230	--
12	Sidhbari	3,767	48,997	--
13	Sadwar	3,053	52,050	--
14	Indore	60,000	112,050	--
15	Jwalapur	2,207	114,257	--
16	Gopalpur	1,355	115,612	--
17	Hathnikund	833	116,445	--
18	Manpur	4,118	120,563	--
19	Deora	2,782	123,345	--
20	Bhagani	3,285	126,630	--
21	Taruwala	4,416	131,046	--
22	Bheriwala	3,188	134,234	--
23	Majra	1,179	135,413	--
24	Sataun	612	136,025	--
25	Shilla	3,193	139,218	--
26	Jataun	17,808	157,026	--
27	Mahakaal	3,914	160,940	--
28	Lalru	15,006	175,946	--
29	Viratpur	9,584	185,530	--
30	Pipli	4,225	189,755	--
31	Udaypur	2,652	192,407	--
32	Kalibari	35,000	227,407	8,9
33	Fatehpur	3,954	231,361	--
34	Jagatpur	2,115	233,476	--
35	Mewa	507	233,983	--
36	Aut	3,516	237,499	--
37	Shamshi	14,402	251,901	--

Sl. No.	Name of the Village	Population	Cumulative Population	Cluster No.
38	Andheri	2,575	254,476	10
39	Mohkampur	3,105	257,581	--
40	Dinajpur	4,176	261,757	--
41	Kandaghat	4,176	265,933	--
42	Banjar	3,261	269,194	--
43	Rohini	4,270	273,464	--
44	Tori Devi	3,301	276,765	--
45	Durgapur	3,250	280,015	11
46	Bagipal	4,670	284,685	--
47	Berthin	757	285,442	--
48	Sheshnag	12,037	297,479	--
49	Aam Wala	2,155	299,634	--
50	Varun	3,702	303,336	--
51	Bouli	2,262	305,598	--
52	Babri	791	306,389	12
53	Darpan	3,468	309,857	--
54	Ompura	4,338	314,195	--
55	Gangath	3,930	318,125	--
56	Nagwaih	2,112	320,237	--
57	Wazirpur	3,953	324,190	--
58	Onam	,198	326,388	--
59	Kamirao	9,891	336,279	13
60	Paonta	3,154	339,433	--
61	Naggar	2,548	341,981	--
62	Patti	1,034	343,015	--
63	Anand	2,415	345,430	--
64	Pali	4,325	349,755	--
65	Nangal	13,233	362,988	14
66	Hazira	511	363,499	--
67	Yol	2,313	365,812	--
68	Chalana	3,108	368,920	--
69	Laksar	4,163	373,083	--
70	Rambasti	4,250	377,333	--
71	Angadpur	784	378,117	--
72	Ransiha	3,423	381,540	--
73	Phulpur	4,098	385,638	--
74	Dugana	4,540	390,178	15
75	Bakhtari	2,322	392,500	--
76	Wajiba	3,987	396,487	--
77	Tanda	4,211	400,698	--
78	Sapnera	2,541	403,239	--

Sl. No.	Name of the Village	Population	Cumulative Population	Cluster No.
79	Nerwa	848	404,087	--
80	Nagarjun	1,281	405,368	--
81	Kiarada	3,310	408,678	--
82	Vareli	4,313	412,991	16
83	Rakhani	4,762	417,753	--
84	Jalpur	3,647	421,400	--
85	Throach	2,530	423,930	--
86	Yashpur	16,983	440,913	17
87	Mahilpur	2,730	443,643	--
88	Pallavi	4,869	448,512	--
89	Agrakhan	3,300	451,812	--
90	Tadu	4,150	455,962	--
91	Jubbal	3,760	459,722	--
92	Paintal	1,587	461,309	--
93	Larji	16,699	478,008	18
94	Lalkudi	2,703	480,711	--
95	Champa	747	481,458	--
96	Dhakon	4,451	485,909	--
97	Birla	4,425	490,334	--
98	Hidimba	3,860	494,194	19
99	Badabagh	2,835	497,029	--
100	Lalpani	1,725	498,754	--
101	Tejpur	3,988	502,742	--
102	Lana	4,124	506,866	--
103	Jhandu	4,389	511,255	--
104	Gogna	1,126	512,381	--
105	Agre	2,166	514,547	--
106	Eknath	3,393	517,940	--
107	Sawra	4,787	522,727	20
108	Lalmani	3,447	526,174	--
109	Doaba	3,689	529,863	--
110	Sagar	4,696	534,559	--
111	Garli	60,000	594,559	21,22
112	Mahua	3,990	598,549	--
113	Mehla	4,754	603,303	23
114	Tatpur	4,121	607,424	--
115	Ekgran	3,214	610,638	--
116	Pamposh	16,008	626,646	24
117	Oonchagram	4,732	631,378	--
118	Tissa	2,769	634,147	--
119	Sangam	532	634,679	--

Sl. No.	Name of the Village	Population	Cumulative Population	Cluster No.
120	Bassi	1,143	635,822	--
121	Okhla	3,394	639,216	--
122	Dadosiba	8,147	647,363	--
123	Sarin	4,555	651,918	--
124	Rakkar	695	652,613	--
125	Chakra	3,634	656,247	25
126	Wachal	2,115	658,362	--
127	Math	4,507	662,869	--
128	Basti	3,516	666,385	--
129	Hastina	2,402	668,787	--
130	Thana	3,575	672,362	--
131	Kalsi	14,005	686,367	26
132	Charak	676	687,043	--
133	Korga	45,000	732,043	27
134	Angana	4,261	736,304	28
135	Lohgarh	4,919	741,223	--
136	Kartik	17,270	758,493	--
137	Lepoh	3,837	762,330	29
138	Deogarh	2,149	764,479	--
139	Oddi	3,702	768,181	--
140	Ulta	1,927	770,108	--
141	Shergil	4,971	775,079	--
142	Akola	2,468	777,547	--
143	Tattapani	3,383	780,930	--
144	Parvati	3,930	784,860	--
145	Mashobra	3,585	788,445	30
146	Hansa	1,355	789,800	--
147	Hathras	4,285	794,085	--
148	Rupam	3,177	797,262	--
149	Alampur	1,420	798,682	--
150	Kollipara	1,318	800,000	--

$$A = \text{Sampling interval} = \frac{\text{Total cumulative population (800,000)}}{\text{Total No. of clusters (30)}} =$$

B = Random Number =

1.3 ORGANIZE TEAMS AND LOGISTICS

Once the clusters have been identified, it will now be necessary to take action for field work. For this you will need to do the following:

1. Make a list of people who will help you in the survey. They should **not be** those who are directly involved in the immunization programme in the area under survey.

2. Explain carefully to this group exactly how the work is to be done in the field. (This is discussed in the next chapter). Make sure that every member of the team has understood the directions. Each member should practice filling the forms so that they know exactly how it should be done.

3. If the distances of the clusters from the district headquarters and between the clusters is large (as it is likely to be in a district) make travel arrangements in time. The routes should be chalked out in advance. It may be possible for one vehicle to drop several teams to their clusters. Transport facilities are particularly important if every team is expected to visit two clusters a day. The distances should be such that there is no problem in completing the survey.

4. Ensure that adequate copies of printed forms for the survey are available.

5. Assign responsibility for checking individual household/coverage forms as soon as the team returns from the survey. Ideally, all forms should be checked by an experienced supervisor at a location not far from the cluster to allow for return to the cluster to correct any errors.

6. Assign responsibility for compilation, analysis of data and preparing a report. Analysis of data should be done immediately on receipt of data from all clusters. The formal report should be completed within one week of the survey.

CHECKLIST OF ITEMS REQUIRED FOR FIELD WORK AND ANALYSIS

(i)	**Forms for Survey**	Essential	- 4	Household tally marking form (Form 1) Child coverage form (Form 3) Reasons for coverage failure (Form 4) Mother coverage form (Form 5)
		Optional	- 2	List of lame children (Form 2) Additional questions for cluster survey (Form 6)
	Forms for analysis :			Cluster summary forms for the four essential forms (Forms 7a,7b,8,9). Form 10 & 11 are cluster summary forms for the optional forms - 2 and 6.

(ii) Pencil, rubber

(iii) File board

(iv) Vitamin A dispensing spoon and concentrated solution.

(v) Mother - infant immunization card

(vi) Iron and folic acid tablets

1.2.2 Children included in the survey

The survey is conducted on children 12 to 23 months of age. To determine the **earliest** acceptable date of birth you will subtract exactly 24 months from the date of interview. To determine the **latest** acceptable date of birth, you will subtract exactly 12 months from the date of interview. For example, if the survey is starting on 23 April 1992 then the **earliest** date of birth would be 23 April 1990 and the **latest** 23 April 1991.

In addition, during the household tally marking you will investigate for episodes of diarrhoea and acute respiratory infections in children below 5 years and the practices adopted to prevent or treat dehydration.

1.2.3 Household

A household is defined as a group of people **sharing the same kitchen.** You may find many households in a single building, specially in the urban areas. Tenants and servants living in the same building but maintaining separate kitchens are counted as different households. On the other hand, families of, say, two brothers living in the same house and sharing the same kitchen are counted as one household.

1.2.4 Resident child

A child residing for last 6 months or more in the area is considered a resident. Records of all children in the correct age group must be taken. If there is a child who is from outside the area but residing in the household for 6 months or more, that child should also be considered a resident.

1.2.5 Mothers included in the survey

The survey is conducted on mothers of children who are less than one year of age i.e. those women who have delivered a child within the previous one year from the date of the survey. To determine the **earliest** acceptable date of delivery you will subtract exactly 12 month from the date of interview. For example, if the survey is starting on 23 April 1992 then the **earliest** date of delivery would be 23 April 1991 and the **latest** 23 April 1992.

2.0 FIELD WORK

2.1 SELECTION OF THE FIRST HOUSEHOLD

When you reach the selected cluster, you should go to the centre of the village and select the first house by the following random selection procedure. Number the paths leading from the centre. Use a currency note and look at the last digit of the serial number. Select the path you will take. Next, count or estimate as accurately as possible the number of houses from the centre of the village to the boundary along that path. Then, select a random number between 1 and the total number of houses. This number represents the first house from which you will start the survey. The first house and the direction the investigator identifies for the survey should be at random.

Before beginning the survey in the field, complete the appropriate space for cluster number, date of survey, locality and surveyor's name on the forms.

2.1.1 In densely populated urban areas and in multi-storey buildings

Urban areas are divided into wards and sub-divisions of wards. After selection of a cluster in a particular ward, go to a central space of the ward and select the direction as given above.

Selection of the first household is done in the same manner as for villages. If it is not possible to count or to estimate the number of buildings along a particular road, then it may be necessary to determine the first household in another manner. It is suggested that the distance may be measured or estimated, for example, by the time taken to walk to the end of the road. Then a random number between 1 and the maximum distance can be chosen by using a currency note, for example, if it takes 15 minutes to walk to the end of the road, then a number between 1 and 15 can be randomly chosen. Say if 7 is chosen then walk for 7 minutes and go to the nearest building to start.

In case your first household falls in a multi-storey building, select the floor and then the household at random. In a double storey building, even digit indicates the ground floor and odd digit, the first floor.

2.2 VISIT TO HOUSEHOLD

As you will be visiting a small percentage of the households only, it is important that you ask every question carefully and that you visit the households according to the following procedure.

When you reach the first household enter the time on Form 3 (Child Coverage Form). Before you commence the interview, you should explain the purpose of the visit to the mother, family head or other responsible member of the family. If there is no responsible member present who can answer questions and a mother-infant immunization card is also not available then skip the household and make no entry on the form.

2.2.1 Recording on "Household tally marking form" (Form 1)

You should first ask if there are any children under 5 years of age (children who have not completed 5 years yet) in the household. If there are no children under 5 years of age in the household, put a '0' against both boxes of question no. 1 and ask question no. 2 i.e whether there was any death of a child below 5 years in the previous 12 months. If the answer is yes, record the number of such deaths in the box against M for Male and F for female. If the answer to question no. 2 is in the affirmative, after recording the number against the relevant boxes for 2 you will proceed with administering questions 3 to 6 and record the numbers. If however, the answer to question number 2 is also '0'proceed to the next household.

If the response to question no. 1 is yes, determine the number of such children in the in the two sexes and record the number against the relevant boxes. Then proceed with asking each one of the questions from 2 to 6 and record the number of child deaths in the relevant boxes against M for male and against F for female.

Next ask if any of the children suffered diarrhoea in the last 14 days (2 weeks). If the answer is in the affirmative, record the number of such children against M for the male children and against F for the female children in the boxes in front of item 7. Then proceed with recording the response for items 8 to 11. In case more than one child in the household suffered diarrhoea in the reference period, you will determine and record the responses for the youngest of them only. For items 8 and 9, you will use the codes given on the bottom of the form and for items 10 and 11 record 'Y' for 'yes' and 'N' for 'No'.

Similarly, you will administer the question for item 12 - if any child suffered acute respiratory infections in the last 14 days. If the answer is in the affirmative, record the number of such children against M for the male children and against F for the female children in the boxes in front of item 12. Then you will determine the response to items 13 and 14. If more than one child suffered acute respiratory infections in the last 14 days, you will determine ;and record the responses for the youngest of them only.

Form No. 1

HOUSEHOLD TALLY MARKING FORM

District :
Cluster No. :
Cluster Name:

Range of dates of birth
From
Till

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31-75
1. Household No.																																
2. No. of children under 5 years	M																															
	F																															
3. No. of deaths in children under 5 years in last 1 yr	M																															
	F																															
4. No. of livebirths in the last 1 year	M																															
	F																															
5. No. of neonatal (0-4 weeks) deaths in the last 1 yr.	M																															
	F																															
6. No. of infant deaths in the last 1 year	M																															
	F																															
7. No. of children under 5 years with diarrhoea in the last 2 weeks	M																															
	F																															
8. What fluids did you give the youngest of them ?																																
9. Did you give more, less or same amount of food as diarrhoea started, or did you stop feeding during diarrhoea																																
10. Did you receive ORS from within your village ?																																
11. Did you receive ORS from any health facility ?																																
12. No. of children under 5 years with cough or cold in the last 2 weeks	M																															
	F																															
13. Did your child have fast breathing, difficult breathing or chest indrawing																																
14. If yes, did you seek help from a health facility																																

For item nos. 10, 11, and 14, mark 'Y' for Yes and 'N' for No.
For item no. 13, mark 'Y' for Yes, 'N' for No and 'DK' for do not know.
For item no. 8, mark (1) for 'no fluids' (2) for home available fluids (3) for ORS and (4) for other options
For item no. 9 mark 'M' for more, 'S' for same, 'L' for less, 'W' for stopped and 'DK' for do not know.
For item nos. 2 to 7, enter number of male children in the box M and number of female children in box F.

Date :

INVESTIGATOR'S NAME AND SIGNATURE

Age of the child

You can calculate the earliest acceptable date of birth by subtracting exactly 5 years from the date of survey. For example, if the survey is being done on 23 April 1992, the earliest acceptable date of birth would be 23 April 1987. All children born after this date should be included in the survey (Form 1). If the mother/family member finds it difficult to assess the age of the child, you may help her to remember by referring to local festivals/events. A sample of a calendar with local events is given in Annexure-IV.

Infant and neonatal deaths

Enquire about any birth or death of an infant in the family during the past one year. The death of a baby within the first four weeks of life must be specifically asked for and the information entered separately under item 5. The infant death under item 6 includes all deaths below one year of age including the deaths entered under item 5.

Diarrhoea

When stools contain more water than normal, it is called diarrhoea. For question No. 7 on diarrhoea, please indicate 'Y' for Yes and 'N' for No. In case, more than one child have suffered diarrhoea in the last two weeks, the response should be 'Y'. However, for questions 8 to 11 the responses for the youngest child who suffered diarrhoea should be entered as per legend at the bottom of the form.

Pneumonia (ARI)

When you are filling up the questions (12 to 14) on cough and cold, you will obtain data on the morbidity level of the same among under fives in the community. It also tells us the proportion of mothers who can recognize fast breathing and chest-indrawing and the treatment seeking behaviour of mothers/care-givers.

Poliomyelitis

In case you are also conducting the lameness survey, you will fill in the forms 1 and 2 simultaneously. After completing the items 1 to 14 on form 1, you will ask if any child, less than 5 years of age, is lame. List the names of such children in form 2. This will be done as an optional part of evaluation of service coverage. Please note that the sample size will have to be much larger. More details are included under Annexure II.

Child Immunization Status

Once the data regarding children under 5 years of age in the household have been entered on the forms 1 and 2 (optional), you should determine if there are any children under 2 years of age in the household. Complete the child coverage form for children of 12-23 months, Reasons for coverage failure form, Mother coverage form (Forms 3, 4 and 5) and Additional questions for Coverage failure (Form 6).

2.2.2 Recording on "Child Coverage Form" (Form 3)

The child coverage form is for children from 12 to 23 months of age. The *earliest* and *latest* acceptable date of birth are calculated by subtracting exactly 24 months and 12 months from the date of interview. If the coverage survey is done on 23 April 1992, the date of births of children to be surveyed must fall between: 23 April 1990 and 23 April 1991.

If there is no child aged 12-23 months, make no entry on the child coverage form.

If there is a child of the particular age, request the mother or a responsible person to produce the following documents (if available):

1. Child's birth registration certificate and
2. Mother-infant immunization card or record.

These documents should as far as possible be produced for every child. You should complete the survey form as follows:

Range of date of birth	23 April 1990 to 23 April 1991
Time begun	Enter time when survey is begun in the cluster
Time completed	Enter time when the survey form is completed in the cluster
Name, address and sex	Enter name of the child. Next enter name of child's father or mother and address. Also record the sex of the child.
Child number	The child numbers range from 1 to 10. The child numbers 8 to 10 have been included in case the 8th, 9th or 10th child were found in the same household where the 7th child of the cluster was located.
Sibling interval in months	Ask if the index child has a younger sibling. If yes, record the difference in age (in months) between the index child and the younger sibling. If the index child does not have a younger sibling the difference in age (in months) between the index child and its immediately older sibling will be recorded here. If the index child is the only child, record 0.
Date of birth	Enter date of birth, e.g. 24/2/91 or 2/91. If possible verify with any available record produced by mother, whether the date falls between 23 April 1990 and 23 April 1991 (both dates inclusive).

Form-3

CHILD COVERAGE FORM

District :
Cluster No. :
Cluster Name :

Range of dates of birth
From
Till

CHILD NUMBER IN CLUSTER		1	2	3	4	5	6	7	8	9	10	Total
Name												
Father's Name & Address												
Sex : M/F												
Sibling interval (months)												
Date of Birth												
IMMUNIZATION CARD	Yes											
	No											
DPT 1	Date											
	Source											
DPT 2	Date											
	Source											
DPT 3	Date											
	Source											
POLIO 1	Date											
	Source											
POLIO 2	Date											
	Source											
POLIO 3	Date											
	Source											
MEASLES	Date											
	Source											
BCG	Date											
	Scar +/0											
	Source											
VIT A Dose 1	Date											
	Source											
Whether fully immunized												

Source (Place of immunization): HOS - Hospital, HC-Health Centre, SC - Sub-Centre, OUT - Outreach or village and PRIV - Non-Governmental or Private Sector facilities.

Indicate against the column total the dose totals for each vaccine/Vitamin A under the same five sub-headings i.e. HOS/HC/SC/OUT/PRIV.

Time Begun : _____
Time completed: _____

Investigator's name and signature

Immunization card If a card or any record is present, documenting the immunization mark, put (+) in box against 'yes'. If no record is available, mark (-) in box against 'no'.

For boxes DPT 1, 2, 3; Polio 1, 2, 3; Measles; BCG and Vitamin A[4]

Date Enter date of every dose of immunization and the first dose of Vitamin A e.g. 18/8/90 or 8/90. Verify date with immunization card or record if available.

If the card is not available, enquire from mother if the child has been immunized or has been given the first dose of Vitamin A. If the answer is Yes, enter the month and year in the box for the relevant dose.

If a child has not received a dose, put "**O**" in the box for the relevant dose.

BCG scar Examine child's upper arm and enter "**+**" if scar is present; if absent enter "**O**". If the child is not available for examination, enter "**A**".

Source Fill in source of immunization/1st dose of Vitamin A. Put **HOS** for government hospital; **HC** for government health centre; **SC** for sub-center and other fixed centres providing immunization services; **OUT** for outreach centres and **PRIV** for non-governmental or private hospitals, clinics or practitioners.

2.2.3 Recording on "Reasons for Coverage Failure Form" (Form 4)

Once the form 3 (Child coverage form) is completed, determine whether the child is fully immunized. The immunization status of the child is entered as **FULLY, PARTIALLY or NOT IMMUNIZED** by placing a mark "+" in the relevant box of form 4.

FULLY BCG (1), DPT (3), OPV (3), and Measles (1).

PARTIALLY Some doses of vaccine have been administered but immunization is not complete.

NOT IMMUNIZED Not even a single dose of any vaccine has been administered.

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[4] In order to familiarize the mother with Vitamin A, the concentrated solution in the standard bottle with the plastic spoon must be shown to her. This is necessary if the card is not available for verification.

FORM NO. 4

REASONS FOR COVERAGE FAILURE FORM

District :
Cluster No. :
Cluster Name:

Range of dates of birth
From
Till

Child number in cluster		1	2	3	4	5	6	7	8	9	10	Total
Immunization status	1. Fully immunized											
	2. Partially immunized											
	3. Not immunized											
Lack of information	1. Unaware of need for immunization											
	2. Unaware of need to return for 2nd or 3rd dose											
	3. Place and/or time of immunization unknown											
	4. Fear of adverse reactions											
	5. Wrong notions on contraindications											
	6.											
Lack of motivation	1. Postponed till another time											
	2. No faith in immunization											
	3. Rumours											
Obstacles	1. Place too far											
	2. Time inconvenient											
	3. Vaccinator absent											
	4. Vaccine not available											
	5. Mother too busy											
	6. Family problem, mother ill											
	7. Child ill, not brought											
	8. Child ill brought, not given											
	9. Long waiting time											
	10.											
Vitamin A Prophylaxis	1. Prophylaxis given											
	2. Prophylaxis not given											
	3. Available Y/N / DK											

Note : Ask only one question i.e. Why was the child not immunized? or
Why was the child not fully immunized?

Mark (/) the most relevant reason(s) according to your judgment.

Date :

Investigator's Name and Signature

For a **partially immunized child** or a **not immunized child**, ask the responsible person to give the most important reason why immunizations were incomplete or not done. This is an open ended question. Wait till the respondent answers in her or his own words. **Do not read out the list of possible answers.** Put a mark "+" in the box(es) for the relevant reason(s): If a reason given is not on the list, use the blank space provided.

The "+" should be marked in the same column as the number of the child. For example, if the children Nos. 3 and 5 were partially immunized, mark the given responses in columns 3 and 5 only. Other columns will be left blank. For a child who was not given Vitamin A prophylaxis - ask whether it was available. Write **Y** for YES, **N** for NO and **DK** for DO NOT KNOW. Next, ask the mother, would she give her child Vitamin A prophylaxis if it is made available. Write **Y** for YES, **N** for NO.

2.2.4 Recording on the "Mother Coverage Form" (Form 5)

The information entered on the mother coverage form (Form 5) should be for mothers who had delivered in the last 12 months. If the survey is conducted on 23 April 1992, all mothers delivered after 23 April 1991 would be included.

Age at the time first pregnancy[5] Ask the mother her age at the time of her first pregnancy. You will determine if the first pregnancy was too soon or too late.

Date of last delivery Ask the mother if she had a delivery before the one on which you are collecting information. If yes, record the month and year of the delivery. You will determine whether the interval between successive deliveries is adequate or not.

Range of dates of birth Between 15 April 1991 - 15 April 1992

Date of birth of child As we are assessing only the mothers who had delivered in the last 12 months the date of birth of the child should be within one year of the date of survey.

Immunization card[6] Ask for immunization card/any other record on immunization.

TT1, TT2/Booster Determine if any dose of TT was given prior to this delivery. Enter the date of the first dose of TT in the box for "TT1". Record the date of the second dose or booster in the box for TT2/Booster. The code for the source of tetanus immunization must be entered below the date of the corresponding dose. The codes for source are same as given in page 22.

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[5] Pregnancy here denotes that the age of the woman at the time of delivering a live or still-born child or on the day of spontaneous/ induced abortion

[6] If an immunization record is not available, ask the mother if she has ever been immunized. Try to determine if the immunization was for tetanus. If you are convinced that the mother received TT then enter dose in the box for TT. If the month and year is not known ascertain the same by asking in which month of pregnancy it was given and when she delivered or how old the baby is now. If the mother has received more than 1 dose of TT and the most recent dose was during pregnancy enter month and year for TT2 or booster. If possible try and verify the immunizations reported with records at the Health Centre.

FORM NO. 5

MOTHER COVERAGE FORM

District :
Cluster No. :
Cluster Name :

Range of dates of birth
From
Till

Mother number in cluster		1	2	3	4	5	6	7	8	9	10	Total
Your age at first pregnancy	< 20 years											
	20 years or more											
Date of previous delivery												
Date of birth of child												
Immunization card	Yes											
	Other records											
TT1	Date											
	Source											
TT2 / Booster	Date											
	Source											
Iron and Folic acid tablets	Given (mention numbers)											
	Consumed Y/N											
	Source*											
Ante-natal care	Yes/No											
Place of delivery	Govt./Pvt.HC/Hospital											
	Home											
	Other											
Attended by	Health staff											
	Trained Dai											
	Untrained Dai											
	Other											
Birth spacing/limiting method**												

* Source (Place of immunization) : Govt. Hospital - HQs; Govt. Sub-centre - SC Outreach - OUT; Govt. Health Centre - HC; Non-Govt. Hospital/Private Clinic - PRIV

** Spacing/limiting method - 1 None, 2 Condom, 3 IUD, 4 Oral pill, 5 Tubectomy, 6 Vasectomy and 7 natural.

Time begun :
Time completed :
Date :

Investigator's name and signature

IFA tablets

Record the number of iron and folic acid (IFA) tablets given by the health worker in the box provided, if that information is available from the card or if the mother remembers the number. If some IFA tablets were given but the mother is not sure of the quantity, enter "+" only. If no tablets were given mark "O".

Ante-natal care

If the mother had at least three ante-natal contacts during the current pregnancy, mark 'YES' in the box. Otherwise, mark 'NO' in the box.

Delivery

Enter a mark "+" in the relevant box for place of delivery of the child.

Attended by

Enter a mark "+" in the relevant box for 'who attended the delivery of this child'.

If the mother is not present, enter "A" in the boxes.

Birth spacing/limiting

Mark the relevant code for birth spacing/limiting method used:

1. if no method is adopted;
2. for conventional contraception use i.e. condom;
3. for intra-uterine device such as Lippe's loop or Copper-T;
4. for oral contraceptive pills;
5. for tubectomy;
6. for vasectomy of the husband;
7. for any natural method such as rhythm or safe method;

2.3 NEXT HOUSEHOLD

After completing the first household, move to the next household whose front door is nearest to the front door of the household just visited by you. Keep moving to the nearest household till you have completed survey of 7 children/mothers. If there is more than one child of the right age group in the last household then record the particulars of all the children and do not stop when you complete the particulars of the seventh child. You will adopt the same procedure while filling up the "mother coverage form".

Excluded from the survey are:

(i) households already visited;
(ii) households outside the survey area;
(iii) households that are locked;
(iv) military establishments, hostels, orphanages, schools, mosques, temples, hospitals, maternity homes etc.

2.4 OTHER CLUSTERS

The survey would be completed by using the same process for the remaining 29 clusters.

2.5 EXERCISE B

Complete the Child Coverage Form (Form No.3) given on page 29

1. Record the name of the district.

2. Identify the cluster number. For this you may assume you are doing your survey in District "A". Record the correct cluster number on the child coverage form. Refer to form on page 10 to identify the number of clusters in the district.

3. Record the date of interview. For this exercise record 7 March 1992 as the date of evaluation.

4. Identify the age group to be evaluated. (The age group to be evaluated is children in the 12-23 months of age at the time of the survey).

5. Identify the dates of birth of children in the age group. These dates will be based on the date of interview.

To determine the **earliest** acceptable date of birth, you will have to subtract 24 months from the date of interview. (You subtract 24 months instead of 23 months because you wish to include all children who are even one day less than 24 months of age). By subtracting 24 months, you will also include children who are exactly 24 months of age, which is acceptable. To determine the **latest** acceptable date of birth, you will need to subtract exactly 12 months from the date of interview.

Example

1. Assume the interview date to be 7 March 1992.

2. Count back from the date of interview exactly 24 months to determine the earliest acceptable date of birth.

3. Count back from the date of interview exactly 12 months to determine the latest acceptable date of birth.

4. Using the date of interview of 7 March 1992, calculate and record the dates of birth of children in the age group to be included in the survey.

5. If no immunization cards or birth records are available, you may need to use months of birth instead of specific dates.

6. Identify the city or town or village of the cluster by referring to the cluster identification form on page 10 to 13.

7. Write your name as the investigator.

Form-3

CHILD COVERAGE FORM

District :
Cluster No. :
Cluster Name :

Range of dates of birth
From
Till

CHILD NUMBER IN CLUSTER		1	2	3	4	5	6	7	8	9	10	Total
Name												
Father's Name & Address												
Sex : M/F												
Sibling interval (months)												
Date of Birth												
IMMUNIZATION CARD	Yes											
	No											
DPT 1	Date											
	Source											
DPT 2	Date											
	Source											
DPT 3	Date											
	Source											
POLIO 1	Date											
	Source											
POLIO 2	Date											
	Source											
POLIO 3	Date											
	Source											
MEASLES	Date											
	Source											
BCG	Date											
	Scar +/0											
	Source											
VIT A Dose 1	Date											
	Source											
Whether fully immunized												

Source (Place of immunization): HOS - Hospital, HC-Health Centre, SC - Sub-Centre, OUT - Outreach or village and PRIV - Non-Governmental or Private Sector facilities.

Indicate against the column total the dose totals for each vaccine/Vitamin A under the same five sub-headings i.e. HOS/HC/SC/OUT/PRIV.

Time Begun : _____
Time completed: _____

Investigator's name and signature

RECORD OF A.N.C. AND IMMUNIZATION DURING PREGNANCY

DATE A.N.C.–1	DATE A.N.C.–2	DATE A.N.C.–3
DATE IRON	DATE IRON	DATE IRON
DATE T.T.–1	DATE T.T.–2 (Booster)	

- The pregnant woman should regularly meet the health worker to get ante-natal check-ups (A.N.C.) done.
- Remember, it is important to get 2 T.T. injections or 1 T.T. booster injection, and to take 100 iron tablets in 3 months, during pregnancy.
- Remember that T.T.-2 (Booster) should be given at least 1 month before the expected date of delivery.

NATIONAL IMMUNIZATION MISSION
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INFANT IMMUNIZATION RECORD

I. DURING THE FIRST YEAR (0-12 MONTHS)

DATE B.C.G.		
10.2.91 DATE D.P.T.–1	16.3.91 DATE D.P.T.–2	18.4.91 DATE D.P.T.–3
10.2.91 DATE O.P.V.–1	16.3.91 DATE O.P.V.–2	18.4.91 DATE O.P.V.–3
30.9.91 DATE Measles/ AND	30.9.91 DATE Vitamin A–1	

- Get all the injections/doses at the scheduled time and get them recorded here.
- Remember, there must be a gap of one month between every injection/dose of D.P.T./O.P.V.

Health worker's signature

NATIONAL IMMUNIZATION MISSION
Government of India

TEAR ALONG THE DOTTED LINE

MOTHER-INFANT IMMUNIZATION CARD

Serial number 44

Name of the pregnant woman LILA

Husband's name RAMU

Expected date of delivery 18.12.90

House number 805 Village/Ward MILAD

P.H.C./Town RAMPUR

Sub-centre/Clinic MILAD

Name of the infant UMA

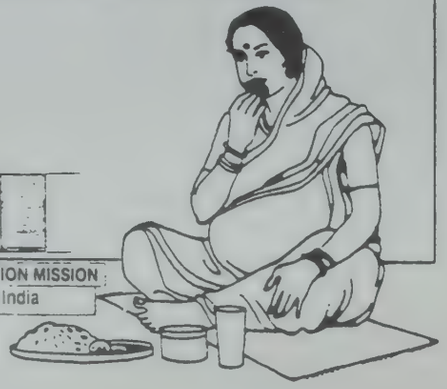
Sex of the infant F Date of birth 13.12.90

NATIONAL IMMUNIZATION MISSION
Government of India

RECORD OF A.N.C. AND IMMUNIZATION DURING PREGNANCY

DATE A.N.C.—1	DATE A.N.C.—2	DATE A.N.C.—3
DATE IRON	DATE IRON	DATE IRON
DATE T.T.—1	DATE T.T.—2 (Booster)	

- The pregnant woman should regularly meet the health worker to get ante-natal check-ups (A.N.C.) done.
- Remember, it is important to get 2 T.T. injections or 1 T.T. booster injection, and to take 100 iron tablets in 3 months, during pregnancy.
- Remember that T.T.-2 (Booster) should be given at least 1 month before the expected date of delivery.



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Government of India

INFANT IMMUNIZATION RECORD

I. DURING THE FIRST YEAR (0-12 MONTHS)

8·11·90 DATE B.C.G.		
28·12·90 DATE D.P.T.—1	5·2·91 DATE D.P.T.—2	5·3·91 DATE D.P.T.—3
28·12·90 DATE O.P.V.—1	5·2·91 DATE O.P.V.—2	5·3·91 DATE O.P.V.—3
30·8·91 DATE Measles	30·8·91 DATE AND Vitamin A.-1	

- Get all the injections/doses at the scheduled time and get them recorded here.
- Remember, there must be a gap of one month between every injection/dose of D.P.T./O.P.V.

Health worker's signature

NATIONAL IMMUNIZATION MISSION
Government of India

TEAR ALONG THE DOTTED LINE

MOTHER-INFANT IMMUNIZATION CARD

Serial number 45

Name of the pregnant woman Suman

Husband's name Somu

Expected date of delivery 4·11·90

House number 881 Village/Ward · MILAD

P.H.C./Town RAMPUR

Sub-centre/Clinic MILAD

Name of the infant KUMAR

Sex of the infant M Date of birth 6·11·90

NATIONAL IMMUNIZATION MISSION
Government of India

In order to identify age errors on the mother-infant immunization card/record(s), it is best if the child whose record(s) is being reviewed, is physically present at the time of review. If there appears to be an age discrepancy, you should attempt to verify the listed date of birth by asking to see the child's birth certificate (if available) or through questioning. If the card is presented for a child who is not present, but who falls in the age range to be evaluated, record the information on the form.

Use the information on the sample mother-infant immunization card on pages 30-31 to complete the "child coverage form" for the first household.

After listing information on all the children in the household whose ages fall in the acceptable range, check the date recorded for any obvious errors. (Are there blank spaces? Are there immunization dates which occurred prior to the date of others in the same family eg. twins?) Then proceed to the next household, which will be one nearest to the initial household. Use information on the sample card, to complete the same "child coverage form" in the second household. When you have recorded all relevant information for the second household, review your form with a course facilitator.

In a real survey situation you would continue the process until the seventh child in the age range to be surveyed has been located. Other children in this age range who are residents in the same household where the seventh child is identified should also be listed.

2.6 CHECK DATA COLLECTED

The data collected from the survey teams must be checked to ensure that the survey contains the correct number and locations of clusters and the correct number of children in each cluster.

You will need to ensure that:

- All the 30 clusters have been surveyed. To do this, you must review the forms submitted by every team member to see if there are forms for each one of the identified 30 clusters. When fewer than 30 clusters have been surveyed, the missing cluster(s) will need to be identified and surveyed.

- Seven children in the age range to be surveyed have been listed for each cluster. To do this, you must review every "child coverage form" to determine if at least seven children in the range of ages to be included have been listed for every cluster.

- If a "child coverage form" or "mother coverage form" is missing or incomplete, the cluster must be resurveyed. If any discrepancies are noted in the information, the child must be visited again.

2.7 EXERCISE C

As mentioned earlier, recording errors may occur and need to be checked and corrected before leaving every household. On page 35 is a "child coverage form" which was not carefully reviewed. Review this form and circle all obvious errors and/or omissions. Review your work with a course facilitator and correct the form according to the information provided by the course facilitator.

Complete the Child Coverage Form (Form 3)

The fact that the immunization was given does not ensure that it was valid. To be effective, vaccines must be given at appropriate ages and if the immunization is either DPT or OPV, it must be given after the appropriate interval.

Measles - At 9 months (i.e when 9 months are completed)

BCG - soon after birth.

Polio/DPT - First dose any time after 6 weeks of birth. Subsequent doses spaced at least one month or 28 days apart.

A person immunized at the wrong age should be considered not immunized. A second or third DPT or polio dose which is given less than one month after the preceding dose should be considered invalid. There is no limit for maximum interval between first and second dose, as well as between the second and the third dose. You would, however, check to see that the doses were completed before 12 months of age. **Measles vaccine given before completion of 9 months of age (270 days) is not valid.**

Form-3

CHILD COVERAGE FORM

District :
Cluster No. : 2
Cluster Name : Haripur

Range of dates of birth
From 15·2·90
Till 8·3·91

CHILD NUMBER IN CLUSTER		1	2	3	4	5	6	7	8	9	10	Total
Name		Shyam	Radha	Seta	Mohan	Gita	Rajiv	Sudha	Rita			
Father's Name & Address		15/2 Model Town	16/B Model Town	35-C Model Town	135 Model Town	82-C Model Town		232 Model Town	236 Model Town			
Sex : M/F		F	F	M	M	F	M	F	F			
Sibling interval (months)		72	31	48	56	3	16	18	27			
Date of Birth		17·12·91	8·10·90	13·4·91	2·2·91		5·3·91	20·11·90	15·1·91			
IMMUNIZATION CARD	Yes	+	+		+		+	+	+			
	No			+								
DPT 1	Date	17·4·91	17·4·91	20·5·91	17·4·91		6·6·91	16·1·91	12·4·91			
	Source											
DPT 2	Date	8·6·91	8·6·91	20·12·91			2·10·91	6·6·91	5·8·91			
	Source											
DPT 3	Date	O	3·8·91	3·8·91			14·10·91	O	19·5·91			
	Source						HC					
POLIO 1	Date	17·4·91	17·4·91	20·9·91	17·4·91		6·6·91	16·1·91	12·4·91			
	Source											
POLIO 2	Date	8·6·91	8·6·91	20·12·91			2·10·91	6·6·91	5·8·91			
	Source											
POLIO 3	Date	O	7·8·91	3·3·92			14·4·91	O	19·9·91			
	Source						PRIV		OUT			
MEASLES	Date	O	3·8·91	O	2·12·91		14·4·91	O	13·8·91			
	Source											
BCG	Date	9·12·91	1·12·91	14·7·91	9·12·91	?	1·3·91	16·1·91	16·1·91			
	Scar +/O					+						
	Source					OUT						
VIT A Dose 1	Date	17·12·91	8·12·91	13·9·91			5·10·91	3·4·91				
	Source	OUT	PRIV	OUT			OUT	OUT				
Whether fully immunized			+					+				

Source (Place of immunization): HOS - Hospital, HC-Health Centre, SC - Sub-Centre, OUT - Outreach or village and PRIV - Non-Governmental or Private Sector facilities.

Indicate against the column total the dose totals for each vaccine/Vitamin A under the same five sub-headings i.e. HOS/HC/SC/OUT/PRIV.

Time begun : _____
Time completed: _____

Investigator's name and signature

3.0 TABULATE DATA

Any data collected is useless unless it is analyzed. Coverage evaluation information must not only be analyzed, but it must also be analyzed quickly in order to serve a useful purpose. When the coverage evaluation team has finished collecting data from its 30 assigned clusters, the forms should be handed over immediately to the supervisor of the coverage evaluation(s). (S)he will check to see whether the forms are complete and accurate and (s)he will review the forms to determine which immunizations are valid (given at the correct age and at the correct interval). (S)he will then complete the "fully immunized" section of the forms 3 and 4. The information should then be transferred to the cluster summary forms (Forms 7a, 7b, 8 and 9). The calculations of sub-totals and totals on the cluster summary form are parts of the analysis of collected data.

(S)he will check that all the other information has been noted including the reason for partial or no immunization in the form 4.

3.1 EXERCISE D

1. Using the corrected child coverage form which you completed in Exercise C, circle all shots which are not valid according to the schedule listed above.

2. If a child has received complete immunization (i.e there are no blank spaces or circled boxes), record a "+" in the column titled "fully immunized" in form 4.

3. If a child has not received all doses (there are blank spaces or circled boxes) record a "O" in the column titled "fully immunized" in form 4.

4. After you have reviewed all boxes on the child coverage form, add the number of "+"s recorded in the "fully immunized" column and find out "total fully immunized".

5. Check your answers and discuss any differences you have with a course facilitator.

FORM 7 b

CHILD COVERAGE - CLUSTER SUMMARY FORM

NAME OF DISTRICT : Period of survey

Cluster No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total	%
No. of children																																	
Sibling	< 3 yr																																
	> 3 yr																																
	N.A.																																
Card Test					6	6	7	6	6	5	7	6	7	7	4	6	5	4	6	5	4	6	6	7	6	5	7	7	5	7	6	178	
DPT 1					5	5	6	4	5	6	6	5	5	3	5	6	5	4	6	5	3	5	3	6	6	5	4	4	6	4	4	149	
DPT 2					4	5	4	3	3	5	6	4	3	2	5	6	4	3	3	5	2	2	4	4	3	5	5	3	6	4	5	125	
DPT 3					3	3	4	2	3	3	5	3	3	1	5	5	3	1	3	1	0	4	1	3	3	3	4	3	3	5	4	99	
Source for DPT 3	HOS																																
	HC																																
	OUT																																
	PRIV																																
OPV1					5	5	6	4	5	5	6	5	5	4	5	6	5	5	5	5	3	4	5	6	4	4	6	5	4	6	5	151	
OPV2					4	4	5	7	5	3	4	5	4	3	5	6	4	4	4	5	3	4	3	3	5	3	4	4	4	4	4	130	
OPV3					4	4	4	2	5	2	2	4	4	2	3	5	3	5	3	3	4	4	2	4	3	4	2	3	4	3	4	107	
Source for OPV 3	HOS																																
	HC																																
	OUT																																
	PRIV																																

Cluster No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total	%
Measles					5	5	6	4	4	5	6	5	6	4	4	6	4	4	5	4	4	5	3	5	4	5	6	6	4	5	5	141	
Source :	HOS																																
	HC																																
	OUT																																
	PRIV																																
BCG	No.																																
	Scar																																
Source :	HOS																																
	HC																																
	OUT																																
	PRIV																																
Fully Immunized																																	
Partially Immunized																																	
Not Immunized																																	
Vitamin A 1																																	
Source	HOS																																
	HC																																
	OUT																																
	PRIV																																

CHILD COVERAGE FORM

District :
Cluster No. : 1
Cluster Name: Rampur

Range of dates of birth
From
Till

CHILD NUMBER IN CLUSTER		1	2	3	4	5	6	7	8	9	10	Total
Name		Uma	Kumar	Govind	James	Rani	Suresh	Rupa				
Father's Name & Address		Ramu	Somu	Subash	John	Kishan	Ramesh	Satish				
		805	847	1001	1/25	2/11	903	1095				
		MILAD	MILAD	MILAD	MILAD	KADAT	KADAT	HARAT				
Sex : M/F		F	M	M	M	F	M	F				
Sibling interval (months)		16	24	13	24	12	17	?				
Date of Birth		13.12.90	6.11.90	6.8.90	9.11.90	12.12.90	14.1.91	1.1.91				
IMMUNIZATION CARD	Yes	+	+	+	+	+	+					
	No							+				
DPT 1	Date	10.2.91	28.12.90	16.11.90	9.3.91	10.3.91	1.9.91	0				
	Source	SC	SC	OUT	OUT	HC	PRIV					
DPT 2	Date	16.3.91	5.2.91	25.12.90	9.4.91	0	4.10.91	0				
	Source	SC	SC	HC	OUT		HC					
DPT 3	Date	18.4.91	5.3.91	31.1.91	2.6.91	0	15.11.91	0				
	Source	SC	SC	HC	OUT		HC					
POLIO 1	Date	10.2.91	28.12.90	16.11.90	9.3.91	10.3.91	1.9.91	0				
	Source	SC	SC	OUT	OUT		PRIV					
POLIO 2	Date	16.3.91	5.2.91	25.12.90	9.4.91	0	4.10.91	0				
	Source	SC	SC	HC	OUT		HC					
POLIO 3	Date	18.4.91	5.3.91	31.1.91	2.6.91	0	15.11.91	0				
	Source	SC	SC	HC	OUT		HC					
MEASLES	Date	30.9.91	30.8.91	0	0	0	15.10.91	3.10.91				
	Source	SC	SC				HC	PRIV				
BCG	Date	0	8.11.90	16.11.90	10.11.90	14.12.90	24.1.91	2.4.91				
	Scar +/0		+	0	+	+	0	+				
	Source		PRIV	OUT	HOS	OUT	OUT	PRIV				
VIT A Dose 1	Date	30.9.91	0	0	0	0	15.10.91					
	Source	SC					OUT					
Whether fully immunized			+				+					

Source (Place of immunization): HOS - Hospital, HC-Health Centre, SC - Sub-Centre, OUT - Outreach or village and PRIV - Non-Governmental or Private Sector facilities.
Indicate against the column total the dose totals for each vaccine/Vitamin A under the same five sub-headings i.e. HOS/HC/SC/OUT/PRIV.

Time begun : _____
Time completed: _____

Investigator's name and signature

Form-3

CHILD COVERAGE FORM

District :
Cluster No. : 2
Cluster Name: Haripur

Range of dates of birth
From 7.3.90
Till 7.3.91

CHILD NUMBER IN CLUSTER		1	2	3	4	5	6	7	8	9	10	Total
Name		Hema	Balu	Bobby	Zubin	Rama	Rani	Laxma				
Father's Name & Address		Malik K. Pura	Suresh K. Pura	David K. Pura	Aslam B. Adda	Raman B. Adda	Lallu Market	Rama Market				
Sex : M/F		F	M	F	F	F	F	M				
Sibling interval (months)		12	16	14	12	16	18	?				
Date of Birth		2.12.90	7.3.91	4.2.91	1.12.90	14.2.91	6.3.91					
IMMUNIZATION CARD	Yes	+	+	+	+	+	+					
	No							+				
DPT 1	Date	4.3.91	1.7.91	10.6.91	6.6.91	7.4.91	19.6.91	0				
	Source	HOS	HOS	HC	HC	PRIV	HC					
DPT 2	Date	1.5.91	9.8.91	10.7.91	17.7.91	19.5.91	20.7.91	0				
	Source	HOS	HOS	HOS	HC	HOS	HC					
DPT 3	Date	7.7.91	2.10.91	10.8.91	0	1.7.91	20.8.91	0				
	Source	HOS	HOS	HC		HC	PRIV					
POLIO 1	Date	4.3.91	1.7.91	10.6.91	6.6.91	7.4.91	19.6.91	0				
	Source	HOS	HOS	HC	HC	PRIV	HC					
POLIO 2	Date	1.5.91	9.8.91	10.7.91	17.7.91	19.5.91	20.7.91	0				
	Source	HOS	HOS	HOS	HC	HOS	HC					
POLIO 3	Date	7.7.91	2.10.91	10.8.91	0	1.7.91	20.8.91	0				
	Source	HOS	HOS	HC		HC	PRIV					
MEASLES	Date	13.3.92	13.3.92	0	0	19.2.92	0	0				
	Source	PRIV	PRIV			HC						
BCG	Date	3.12.90	8.3.91	2.3.91	5.1.91	2.3.91	15.4.91	0				
	Scar +/0	+	+	0	+	+	0					
	Source	HOS	HOS	OUT	HC	OUT	OUT					
VIT A Dose 1	Date	13.3.92	13.3.92		0	1.2.91						
	Source	PRIV	PRIV			PRIV						
Whether fully immunized		+	+			+						

Source (Place of immunization): HOS - Hospital, HC-Health Centre, SC - Sub-Centre, OUT - Outreach or village and PRIV - Non-Governmental or Private Sector facilities.

Indicate against the column total the dose totals for each vaccine/Vitamin A under the same five sub-headings i.e. HOS/HC/SC/OUT/PRIV.

Time begun : _____
Time completed: _____

Investigator's name and signature

Form-3

CHILD COVERAGE FORM

District :
Cluster No. : 3
Cluster Name : Indore

Range of dates of birth
From 7.3.90
Till 7.3.91

CHILD NUMBER IN CLUSTER		1	2	3	4	5	6	7	8	9	10	Total
Name		Rahul	Babu	Babli	Kuman	Sonia	Karuna	Ashok				
Father's Name & Address		Mohan Kumar	Srini vasan	S.K. Singh	A.D Raju	Gopal Kishan	R. Singh	R.P. Lal				
Sex : M/F		M	M	F	M	F	F	M				
Sibling interval (months)		16	17	13	12	14	21	38				
Date of Birth		20.1.91	7.3.91	10.2.91	15.1.91	12.12.90	14.2.91	1.1.91				
IMMUNIZATION CARD	Yes	+	+	+	+	+	+	+				
	No											
DPT 1	Date	20.3.91	1.7.91	13.5.91	3.3.91	0	1.3.91	4.4.91				
	Source	HC	HC	OUT	OUT		OUT	HC				
DPT 2	Date	20.5.91	9.8.91	15.6.91	12.4.91	0	3.4.91	4.5.91				
	Source	HC	HC	OUT	OUT		HC	HC				
DPT 3	Date	0	2.10.91	2.8.91	2.6.91	0	12.5.91	6.6.91				
	Source		HC	OUT	OUT		OUT	HC				
POLIO 1	Date	20.3.91	1.7.91	13.5.91	3.3.91	0	1.3.91	4.4.91				
	Source	HC	HC	OUT	OUT		OUT	HC				
POLIO 2	Date	20.5.91	9.8.91	15.6.91	12.4.91	0	1.4.91	4.5.91				
	Source	HC	HC	OUT	OUT		HC	HC				
POLIO 3	Date	0	2.10.91	2.8.91	2.6.91	0	12.5.91	6.6.91				
	Source		OUT	OUT	OUT		OUT	HC				
MEASLES	Date	1.2.92	0	1.12.91	0	2.1.92	1.3.92	5.10.91				
	Source	OUT		PRIV		HC	HC	OUT				
BCG	Date	0	0	11.2.91	18.1.91	18.12.90	15.4.91	2.3.91				
	Scar +/0			0	+	+	+	+				
	Source			OUT	OUT	OUT	OUT	OUT				
VIT A Dose 1	Date	1.2.92	1.2.92	0	0	0	1.3.92	5.10.91				
	Source	OUT	OUT				HC	OUT				
Whether fully immunized							+	+				

Source (Place of immunization): HOS - Hospital, HC-Health Centre, SC - Sub-Centre, OUT - Outreach or village and PRIV - Non-Governmental or Private Sector facilities.
Indicate against the column total the dose totals for each vaccine/Vitamin A under the same five sub-headings i.e. HOS/HC/SC/OUT/PRIV.

Time begun : _____
Time completed: _____

Investigator's name and signature

3.2 EXERCISE E

Complete the Cluster Summary Forms

To determine the number of children whose immunization doses are valid in your survey of 30 clusters, you will transfer information from coverage forms to the cluster summary form.

In this exercise, you will record information on the partially-completed child coverage-cluster summary form (Form 7b) on page 38-39. You will obtain information from the copies of filled forms provided on pages 40-42 and use it to complete the following steps:

1. Fill in the introductory data on the cluster summary form (Form 7b). (This has been done for you.)

2. The next step is the correction of the sample "child coverage forms" given in pages 40-42. You have already corrected one such form in Exercise 'C'. In some instances a child may have received 2 or 3 doses of DPT and OPV and one or more of them may not be valid. Circle all the doses which were not given at the correct time.

   Forms on pages 40 to 42 are corrected child coverage forms.

3. On page 40, count the number of valid doses given for each vaccine. In a corrected form, these will be uncircled dates. Count each dose separately (DPT1, DPT2, DPT3). On the cluster summary form (Form 7b) record the total number of valid doses in the columns provided for each dose besides cluster 1. You may assume that all uncircled dates are valid.

   Count the number of mother-infant immunization cards available. Transfer this number to the column titled card test in form 7b. Check the total number recorded for "fully immunized" in form 3 and 4 and record the number in the fully immunized column of the cluster summary form.

   Similarly enter the data from each cluster on the first dose of Vitamin A. Repeat this process for the Child coverage forms on pages 41 and 42; and

4. Determine the sub-totals and total for the cluster summary form. (This has been done for you).

When you have completed this exercise, check your answers and discuss with your course facilitator.

4.0 EVALUATE PROGRAMME

The purpose of collecting and analyzing immunization and other service coverage data is to make possible an evaluation of the extent to which the coverage objectives of the programmes are being achieved.

* **What is the immunization coverage of the target age group?**
* **Is the target age group being reached?**
* **Are beneficiaries outside the target age group being immunized?**
* **Which are the main agencies rendering service coverage?**
* **What are the reasons for poor attendance and high dropouts?**
* **Are the children getting the first dose of Vitamin A prophylaxis in time?**
* **What proportion of pregnant women are protected with 2 doses of TT?**
* **Are women receiving ante-natal care?**
* **Are they practicing birth timing/spacing/limiting?**
* **What contraceptives do they use?**
* **What are the delivery practices?**
* **Are pregnant women receiving iron and folic acid tablets regularly?**
* **Are ORS packets available during an episode of diarrhoea within the village?**
* **What are the practices related to rehydration and feeding during diarrhoea?**
* **Does the mother know when to take a child with acute respiratory infection to health facility?**
* **Are women having first pregnancy[7] after 20 years of age?**
* **What proportion of births are spaced 3 years apart?**

A coverage evaluation survey provides answers to these questions.

---

[7] Pregnancy here denotes the age of the woman at the time of delivering a live or still-born child or on the day of spontaneous/ induced abortion

4.1 EVALUATION WITH REFERENCE TO PROGRAMME OBJECTIVES

EXERCISE F

Read the guidelines below and complete the exercise.

Evaluate the extent to which programme objectives are met by transferring the completed data from the cluster summary form to the appropriate space.

1. Complete the introductory data on the form at page 46.

2. List every vaccine for which programme coverage is being evaluated. This has been done.

3. For each dose listed under column 1, list under column 2 ("Objective for service coverage in percentage") the percent coverage that was expected according to the programme objective. This has been done.

4. For each dose listed under column (1), utilize the sub-totals ("+" and "O") from the cluster summary form to determine the percent coverage achieved, and enter these percents under column (3) - "percent coverage achieved". This can be determined by using the formula:

   $$\frac{\text{sub-total "+"}}{\text{Total "+" + "0"}} \times 100 = \%\ \text{Coverage for the dose}$$

   Use the workspace provided in the next page

   For example, if the sub-total "+" for measles dose = 160 and the total of "+" and "O" for measles is = 210. This is 160/210 x 100 = 76%.

   You should also use the data to determine the difference between the coverage according to your health centre reports and survey data. The coverage for "**fully immunized**" is simply the number of children fully immunized divided by the number of children surveyed. Remember that for this exercise 30 clusters each containing at least seven children were surveyed. In this example 214 children were surveyed.

5. For each of the doses listed (column 1), write in the "difference" between the objective (column 2) and the coverage achieved (column 3).

   objective - achieved = difference

   You can use the data to compare results with previous surveys.

Workspace for Exercise F

EVALUATION WITH REFERENCE TO PROGRAMME OBJECTIVES

District_____ State_____

Dates of coverage survey_____

DOSE (1)	PROGRAMME OBJECTIVE (2)	COVERAGE ACHIEVED (3)	DIFFERENCE (4)
TT2/Booster	100 %		
BCG	100 %		
DPT 3	100 %		
OPV 3	100 %		
Measles	100 %		
Vitamin A I	100 %		

4.2 COMPARISON BETWEEN REPORTED AND EVALUATED COVERAGE

Next, you will compare the coverage figures obtained through the coverage evaluation survey with the reported coverage from the monthly reports for the corresponding period. If a survey is done in April 1992, you will be in a position to compare the evaluated coverage with the reported coverage figures of April 1991. Normally, as a programme manager, you will accept a difference of upto 10% between the reported and evaluated coverage. As the team evaluating coverage will be different from the programme implementing team, you will go to the district MCH officer and obtain the reported coverage figures. Use the following format for comparison:

DOSE (1)	**Reported coverage for the corresponding period in % (2)**	**Evaluated coverage by survey in % (3)**	**DIFFERENCE (4)**
TT2/Booster	100 %		
BCG	100 %		
DPT 3	100 %		
OPV 3	100 %		
Measles	100 %		
Vitamin A I	100 %		

4.3 COMPARISON BETWEEN SUCCESSIVE SURVEYS

As a programme manager you will be interested in having your coverage evaluated at regular intervals. When you do regular surveys, you will compare the evaluated coverage not only with the reported coverage for the corresponding period but also with the figures obtained through previous evaluation surveys. You will use the following format for such comparisons:

DOSE	Evaluation coverage from survey done in		**Difference**
(1)	**19___(2)**	**19____(3)**	**(4)**
TT2/Booster			
BCG			
DPT 3			
OPV 3			
Measles			
Vitamin A I			

4.4 DROPOUT RATES

(a) A major reason for low coverage is the high dropout for the second and third doses with the same antigen (OPV/DPT). You can calculate these from the data available in the cluster summary form by using the following formula:

$$\frac{\text{DPT 1 - DPT 3}}{\text{DPT 1}} \quad X \quad 100$$

DPT 1 are the number of children who received the first dose of DPT and DPT 3, the number of children who received all 3 doses. Dropout rates for OPV are calculated similarly.

(b) Dropout rate for fully immunizing a set of children is calculated from the values for the highest covered antigen dose (HCAD) minus the lowest covered antigen dose (LCAD). The dropout rate is calculated using the formula:

$$\frac{\text{HCAD - LCAD}}{\text{HCAD}} \quad X \quad 100$$

For example

During a village visit, the supervisor went through the immunization records and found the following:

No. of children enumerated = 42

No. given BCG = 40

No. given

DPT 1 and OPV 1 = 37

DPT 2 and OPV 2 = 35

DPT 3 and OPV 3 = 30

Measles = 25

Dropout rate for complete immunization = $\frac{40\text{-}25}{40} \times 100$

= 37.5%

4.5 EXERCISE G

Review of immunization performance for the last year in a sub-centre area having 5000 population revealed the following:

Infants alive at 1 year of age	=	150
BCG given	=	140
DPT/OPV1 given	=	130
DPT/OPV2 given	=	124
DPT/OPV3 given	=	120
Measles given	=	100

1. What is the drop out rate for DPT and OPV?

2. What is the drop out rate for fully immunized?

What are the reasons for partial immunization?

Study the reasons for incomplete immunization carefully. These will reveal the weaknesses in your programme on which you could take practical measures for improvement. You will use the data from the cluster summary forms.

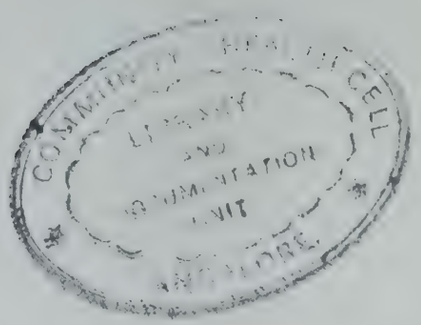
Source of immunization

Use child coverage forms to analyze the source of immunization. Are the immunizations being provided through PHCs and sub-centres or largely through outreach operations? Are private hospitals and voluntary organizations actively participating in the programme in your area?

Coverage of pregnant women with TT2, ante-natal care, iron and folic acid tablets and child spacing and limiting methods.

Use cluster summary form 9. Analyze data as you did for children.

What percentage of mothers are being provided ante-natal care? Are most deliveries being conducted by untrained TBA. What proportion of mothers are spacing or limiting births? What are the contraceptives being used for spacing or limiting births? Is coverage for anaemia prophylaxis too low? Based on survey results appropriate corrective action should be taken.



5.0 PLAN REVISIONS IN MOTHER CHILD CARE ACTIVITIES

Knowledge gained from programme evaluation should be used in planning future programme activities. Evaluation will help identify problems which should be corrected through carefully planned revisions in the coverage activities. Planning should be a continuous process and should be based on:

1. the extent to which objectives are NOT being achieved and an analysis of the underlying reasons for this;

2. the extent to which objectives are being achieved and an analysis of the underlying reasons for this; and

3. the extent to which programme data are complete, accurate, timely or utilized.

For example, if coverage objective of 100% was established and evaluation showed 95% coverage, we can conclude that no major modifications are needed and that a slightly increased effort will bring the programme nearer its goal. If evaluation showed only 60% coverage, some major changes will have to be made in activities to improve performance and step up immunization coverage.

Coverage evaluation should be reported to superiors in the health system so that staff at those levels can help in developing improved plans.

6.0 EVALUATION OF DIARRHOEAL DISEASES CONTROL

While evaluating coverage for activities of Diarrhoeal Diseases Control programme, you have to select certain indicators. The programme priorities are based on indicators for which data is normally collected through **household surveys** done specifically for the purpose.

An indicator suggests or indicates the extent of achievement in a programme or the level of a condition in the population. An indicator can be a number, proportion, percentage or rate. As a programme manager you will be interested in the following:

* ORT plus feeding rate
* maternal knowledge of the three rules of home management
* access to ORS

An indicator may not tell you the whole story but it will give you some idea of what is happening. It is often necessary to look at several indicators together in order to understand the whole story.

Once you have chosen the indicators to measure, then you will have to identify the specific data requirement. Several important indicators enable you to obtain information regarding diarrhoeal diseases in a community. These include, among others, the proportion of mothers who continue feeding, increase fluids, administer ORT, correctly prepare ORS and correctly prepare home available fluids.

The coverage evaluation survey does not attempt to measure all these indicators. Rather, it measures some of the most important, the definitions of which are outlined below:

1. ORT use rate

   Proportion of cases of diarrhoea in children less than 5 years given oral rehydration therapy :

   a) home available fluids
   b) ORS solution

2. Continued feeding rate:

   Proportion of cases of diarrhoea in children less than 5 years given same or increased more amounts of food during diarrhoea.

3. ORS access rate:

   Proportion of diarrhoeal episodes which had access to ORS packets (Even if one child in a village cluster has access, it will be taken that all children with diarrhoea in that cluster have access) :

   a) within the village,
   b) from a health facility

4. ORS depot rate :

Proportion of villages with a functioning ORS depot holder in the village.

6.1 EXERCISE H

These indicators, 1, 2 and 3 can be calculated from the data collected during this survey. Write down the denominator data and numerator data for these three indicators below:

1. ORT use rate

a) Home available fluids = ... x 100

b) ORS Solution = ... x 100

2. Continued feeding rate = ... x 100

3. ORT access rate = ... x 100

a) within village = ... x 100

b) from health facility = ... x 100

4. ORS depot rate = ... x 100

Consult facilitator when you have finished this exercise.

7.0 EVALUATION OF PNEUMONIA CONTROL ACTIVITIES

In the coverage evaluation surveys, you will obtain information on the following items:

* Two week prevalence of acute respiratory infections

* Proportion of acute respiratory infections in which the mothers could identify the signs of pneumonia; and

* Proportion of children with signs of pneumonia for which the mother/care-giver sought help from a health facility.

This information will translate into the following indicators which can be computed by using the following formula:

1. Prevalence of Acute respiratory infections (cough and cold only) in children less than 5 years (over a two weeks period). This can be calculated as follows:

$$\frac{\text{No. of children suffering cough or cold in last 2 weeks}}{\text{Total No. of children surveyed}} \times 100$$

2. Proportion of coughs and colds in which the mothers identified correctly the signs of pneumonia :

$$\frac{\text{No. of children with signs of pneumonia i.e. fast breathing/difficult breathing/chest in-drawing}}{\text{No. of children suffering cough or cold}} \times 100$$

3. Proportion of children with coughs and cold in which treatment from a health facility was sought :

$$\frac{\text{No. of children seeking treatment at a health facility}}{\text{No. of children with cough and cold}} \times 100$$

You should compare the information you obtain through these surveys with the surveillance data that you get both through routine and sentinel surveillance from districts.

Please note that the information you obtain on diarrhoea/pneumonia through this survey cannot be used for any statistical analysis. At best they will give information on trends.

8.0 EVALUATION OF SAFE MOTHERHOOD ACTIVITIES

In the coverage evaluation surveys, will obtain information on the following items :

* Proportion of women with first pregnancy[8] after the age of 20 years;

* Proportion of women who space their successive deliveries 3 months apart;

* Proportion of pregnant women who are protected with 2 doses of TT (or one dose of booster if fully protected in a previous pregnancy);

* Proportion of pregnant women who are receiving and/or consuming IFA for anaemia prophylaxis or for anaemia treatment;

* Proportion of pregnant women who receive ante-natal care;

* Proportion of pregnant women who undergo institutional deliveries;

* Proportion of pregnant women who are attended by a trained birth attendant;

* Proportion of women in their first year after a delivery practising various birth spacing or limiting methods.

This information will be available from the Mother coverage form (Form 5) and the summary of 30 clusters (Form 9) will directly translate into the above proportions.

---

[8] Pregnancy here denotes that the age of the woman at the time of delivering a live or still-born child or on the day of spontaneous/ induced abortion

9.0 PROVIDE FEEDBACK

Staff responsible for immunization activities, have a right to know the results of surveys conducted in their area. This feedback will help them to improve the existing plans and activities.

Meetings should not be held for the benefit of senior or middle level staff only. It is the field level workers who are most often asked to work the hardest in difficult circumstances and who are most affected by programme changes. These staff members in particular must be appreciated for this very important role in the programme.

The next regular staff meeting could be utilized for a discussion on the coverage evaluation survey results. It is ideal to have a thorough group discussion amongst health workers. This could be done in the sectors, where the health workers, with the help of supervisors can frankly discuss findings and all aspects of the programme. Also, this will enable health workers assume more responsibility for remedial measures to improve coverage and commit themselves to further changes necessary in service delivery.

The findings or reports of various sector meetings and group discussions can be summarized and again discussed with senior staff and medical officers. Communication should not be "one way" or "top-down" - it should be two way and continuous.

Supervisors must understand that an evaluation is not a fault finding exercise nor is it to find scapegoats for weaknesses. It has to be more positive and creative. Supervisors must be "problem solvers". This approach alone will instill confidence in the team and among the team members to share rather than hide problems.

The comparisons made between (i) goals/targets and coverage, (ii) the reported and evaluated coverage and (iii) successive surveys should be shared and discussed with other team members of your district and PHC level medical officers.

Finally, at the end of the meeting everyone must be provided with a copy of the points presented during the meeting and the recommendations made.

10.0 SUMMARY

With this module, you have acquired skills to evaluate service coverage for various activities for child survival and safe motherhood.

The coverage for immunization and first dose of Vitamin A was evaluated by the cluster sampling technique of 30 clusters of 7 children each. Coverage for ante-natal care, IFA supplementation and tetanus toxoid immunization, as well as the age at first pregnancy and birth spacing for pregnant women, were also evaluated using a similar sample size.

For the assessment of service coverage on control measures, on diarrhoea and pneumonia, we have used a larger sample of 750-900 children under the age of five years.

Among the skills you have acquired with this applied modular training, the important ones include:

* Identifying clusters in the population under investigation
* Organizing teams and logistics of survey
* Selecting first-household in a village or urban area for starting survey
* Entering data accurately on various forms
* Cross checking possible errors in data collection
* Tabulating data in cluster summary forms
* Analyzing data and evaluating the programme
* Suggesting revisions or improvements based on evaluation

This training will help you understand the exact situation in your area regarding services for Child Survival and Safe Motherhood programme. The conclusions made by you from the evaluation will also give directions on appropriate changes you will have to make in the programme.

Form No. 1

HOUSEHOLD TALLY MARKING FORM

District :
Cluster No. :
Cluster Name:

Range of dates of birth
From
Till

1. Household No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31-75
2. No. of children under 5 years	M																															
	F																															
3. No. of deaths in children under 5 years in last 1 yr	M																															
	F																															
4. No. of livebirths in the last 1 year	M																															
	F																															
5. No. of neonatal (0-4 weeks) deaths in the last 1 yr.	M																															
	F																															
6. No. of infant deaths in the last 1 year	M																															
	F																															
7. No. of children under 5 years with diarrhoea in the last 2 weeks	M																															
	F																															
8. What fluids did you give the youngest of them ?																																
9. Did you give more, less or same amount of food as diarrhoea started, or did you stop feeding during diarrhoea																																
10. Did you receive ORS from within your village ?																																
11. Did you receive ORS from any health facility ?																																
12. No. of children under 5 years with cough or cold in the last 2 weeks	M																															
	F																															
13. Did your child have fast breathing, difficult breathing or chest indrawing																																
14. If yes, did you seek help from a health facility																																

For item nos. 10, 11, and 14, mark 'Y' for Yes and 'N' for No.
For item no. 13, mark 'Y' for Yes, 'N' for No and 'DK' for do not know.
For item no. 8, mark (1) for 'no fluids' (2) for home available fluids (3) for ORS and (4) for other option
For item no. 9 mark 'M' for more, 'S' for same, 'L' for less, 'W' for stopped and 'DK' for do not know.
For item nos. 2 to 7, enter number of male children in the box M and number of female children in box F

Date :

INVESTIGATOR'S NAME AND SIGNATURE

Form No. 2

LIST OF LAME CHILDREN UNDER 5 YEARS

DISTRICT CLUSTER NO. CLUSTER NO.

PERIOD FROM TO

Sl.No.	Name of the child	Address	Age/ Date of Birth	Sex	Date/Month/Year of onset of lameness	Immunization status**
1.						
2.						
3.						
4.						
5:						
6.						
7.						
8.						
9.						
10.						

Probable Polio :

* History of lebrile illness
* History of abrupt onset of weakness or paralysis
* No progression of paralysis after the first three days
* Paralysis not associated with trauma
* Paralysis not present from birth or associated with mental retardation

** Number of OPV doses prior to illness. Check immunization cards or register, if available.

Form-3

CHILD COVERAGE FORM

District :
Cluster No. :
Cluster Name :

Range of dates of birth
From
Till

CHILD NUMBER IN CLUSTER		1	2	3	4	5	6	7	8	9	10	Total
Name												
Father's Name & Address												
Sex : M/F												
Sibling interval (months)												
Date of Birth												
IMMUNIZATION CARD	Yes											
	No											
DPT 1	Date											
	Source											
DPT 2	Date											
	Source											
DPT 3	Date											
	Source											
POLIO 1	Date											
	Source											
POLIO 2	Date											
	Source											
POLIO 3	Date											
	Source											
MEASLES	Date											
	Source											
BCG	Date											
	Scar +/0											
	Source											
VIT A Dose 1	Date											
	Source											
Whether fully immunized												

Source (Place of immunization): HOS - Hospital, HC-Health Centre, SC - Sub-Centre, OUT - Outreach or village and PRIV -Non-Governmental or Private Sector facilities.

Indicate against the column total the dose totals for each vaccine/Vitamin A under the same five sub-headings i.e. HOS/HC/SC/OUT/PRIV.

Time begun : _____
Time completed: _____

Investigator's name and signature

FORM NO. 4

REASONS FOR COVERAGE FAILURE FORM

District :
Cluster No.
Cluster Name:

Range of dates of birth
From
Till

Child number in cluster		1	2	3	4	5	6	7	8	9	10	Total
Immunization status	1. Fully immunized											
	2. Partially immunized											
	3. Not immunized											
Lack of information	1. Unaware of need for immunization											
	2. Unaware about return for 2nd/3rd dose											
	3. Place and/or time of session unknown											
	4. Fear of adverse reactions											
	5. Wrong notions on contraindications											
	6.											
Lack of motivation	1. Postponed till another time											
	2. No faith in immunization											
	3. Rumours											
Obstacles	1. Place too far											
	2. Time inconvenient											
	3. Vaccinator absent											
	4. Vaccine not available											
	5. Mother too busy											
	6. Family problem, mother ill											
	7. Child ill, not brought											
	8. Child ill brought, not given											
	9. Long waiting time											
	10.											
Vitamin A Prophylaxis	1. Prophylaxis given											
	2. Prophylaxis not given											
	3. Available Y/N / DK											

Note : Ask only one question i.e. Why was the child not immunized? or
Why was the child not fully immunized?

Mark (/) the most relevant reason(s) according to your judgment.

Date :

Investigator's Name and Signature

FORM NO. 5

MOTHER COVERAGE FORM

District :
Cluster No. :
Cluster Name :

Range of dates of birth
From
Till

Mother number in cluster		1	2	3	4	5	6	7	8	9	10	Total
Your age at first pregnancy	< 20 years											
	> 20 years											
Date of previous delivery												
Date of birth of Child												
Immunization Card	Yes											
	Other records											
TT1	Date											
	Source											
TT2 / Booster	Date											
	Source											
Iron and Folic acid tablets	Given (mention numbers)											
	Consumed Y/N											
	Source*											
Antenatal care	Yes/No											
Place of delivery	Govt. or private HC/Hospital											
	Home											
	Other											
Attended by	Health staff											
	Trained Dai											
	Untrained Dai											
	Other											
Birth spacing/limiting method**												

* Source (Place of immunization) : Govt. Hospital - HQs; Govt. Sub-centre - SC
Outreach - OUT; Govt. Health Centre - HC; Non-Govt. Hospital/Private Clinic - PRIV

** Birth spacing/limiting method - 1 None, 2 Condom, 3 IUD, 4 Oral pill, 5 Tubectomy 6 Vasectomy and 7 Natural.

Time begun :
Time completed :
Date :

Investigator's name and signature

Form No. 6

ADDITIONAL QUESTIONS FOR THE CLUSTER SURVEY

District Cluster No. Cluster Name

CHILD NUMBER OF CLUSTER	1	2	3	4	5	6	7	8	9	10	Total
Does anyone in the household know the name of diseases prevented by immunization :											
1. Diphtheria Y/N											
2. Pertussis Y/N											
3. Tetanus Y/N											
4. Poliomyelitis Y/N											
5. Measles Y/N											
6. Tuberculosis Y/N											
Where did they receive most of their information on above :											
1. Health Staff											
2. Volunteer											
3. Relatives											
4. Neighbour											
5. Radio/Television											
6. Newspapers/posters											
7. Others											
8. Did not receive											
9. Do not know											
Does anyone in the household know that :											
1. 3 doses of DPT vaccine Yes/No											
2. Birth spacing Yes/No											
3. Need of clean delivery (5 cleans) Yes/No											
4. Reognition of pneumonia * Yes/No											
5. Recognition of dehydration ** Yes/No											

* Recognition of pneumonia by fast breathing with or without chest indrawing in a child having cough and cold

** Signs of dehydration are thirst, sunken eyes, dry tongue and lips, and general condition - restless.

Date : Investigator's name and signature

Form No. 7(a)

National Child Survival and Safe Motherhood Programme
HOUSEHOLD TALLY MARKING FORM - Cluster Summary Form

Name of the district :

Dates of survey

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total
1. No. of children under 5 years		Male																															
		Female																															
2. No. of live births within last one year		Male																															
		Female																															
3. No. of deaths during last one year	Under 4 weeks of age	Male																															
		Female																															
	Under one year of age	Male																															
		Female																															
	Under 5 years 0-5 Years	Male																															
		Female																															
4. No. of children with an episode of diarrhoea during the last 2 weeks		Male																															
		Female																															
5. No. of children given fluids during diarr-hoea	No fluids																																
	Home Av. fluids																																
	ORS																																
	Others																																
6. Feeding during diarr-hoea	M - more																																
	S - same																																
	L - less																																
	W - stopped																																
	DK - Don't know																																
7. No. of mothers or care givers who received ORS from a) source within the village																																	
b) from a health facility																																	
8. No. of children with an episode of cough/cold in the last two weeks		Male																															
		Female																															
9. No. of children who had fast/difficult breathing or chest indrawing																																	
10 No. of children for whom help from health facility was sought																																	

Date :

Investigator's name and signature

FORM 7 b

CHILD COVERAGE - CLUSTER SUMMARY FORM

NAME OF DISTRICT :

Period of survey

Cluster No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total	%
No. of children																																	
Sibling	< 3 yr																																
	> 3 yr																																
	N.A.																																
Card Test																																	
DPT 1																																	
DPT 2																																	
DPT 3																																	
Source for DPT 3	HOS																																
	HC																																
	OUT																																
	PRIV																																
OPV1																																	
OPV2																																	
OPV3																																	
Source for OPV 3	HOS																																
	HC																																
	OUT																																
	PRIV																																

Cluster No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total	%
Measles																																	
Source :	HOS																																
	HC																																
	OUT																																
	PRIV																																
BCG	No																																
	Scar																																
Source :	HOS																																
	HC																																
	OUT																																
	PRIV																																
Fully Immunized																																	
Partially Immunized																																	
Not Immunized																																	
Vitamin A 1																																	
Source	HOS																																
	HC																																
	OUT																																
	PRIV																																

FORM NO 8

REASONS FOR COVERAGE FAILURE FORM

District :

Total number of partially/not immunized children: _____ (Use this as denominator for determining percentage)

	Cluster number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total	%
I	1. Need not aware																																
N	2. Need to return not known																																
F	3. Place/time not known																																
O	4. Fear of reactions																																
	5. Contra-indications not clear																																
	6. Other																																
M	1. Postponed																																
ot	2. No faith in immunization																																
iv	3. Rumours																																
an	4. Other																																
O	1. Place too far																																
bs	2. Time inconvenient																																
ta	3. Vaccinator absent																																
cl	4. Vaccine not available																																
es	5. Mother busy																																
	6. Ill mother/family problem																																
	7. Child ill/not brought																																
	8. Child ill/but brought																																
	9. Long waiting time																																
	10.																																
V	1. Prophylaxis given																																
it	2. Prophylaxis not given																																
A.	3. Availability																																

Date :

Investigator's name and signature

Form 9

MOTHER COVERAGE - Cluster Summary Form

Name of the District : Survey dates :

Cluster		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	T	%
Age 1st deli-very	<20 years																																
	>20 years																																
Birth interv al	< 3 yrs																																
	> 3 yrs																																
	N.A.																																
Card	Yes																																
	No																																
TT1	Number																																
TT2/ B	Number																																
Sourc e	HOS																																
	HC																																
	OUT																																
	PRIV																																
IFA	Proph. given																																
	Therapy given																																
	Consumed fully																																

Cluster		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	T	%
IFA source	HOS																																
	SC																																
	OUT																																
	PRIV																																
ANC	Given																																
Place of delivery	HC/HOS																																
	Home																																
	Other																																
Attended by	Health staff																																
	Trained Dai																																
	Untrained Dai																																
	Other																																
Spacing Method	None																																
	Condoms																																
	IUD																																
	Oral Pills																																
	Tubectomy																																
	Vasectomy																																
	Natural																																

Date

Investigator's name and signature

Form No.10

National Child Survival & Safe Motherhood Programme
ADDITIONAL QUESTIONS (Cluster Summary Form)

CLUSTER NO.	1	2	3	4	5	6	7	8	9	10-30	Total	Percentage
EPI DISEASES:												
Number known : Diphtheria												
Pertusis												
Tetanus												
Poliomyelitis												
Measles												
Tuberculosis												
None known												
INFORMATION SOURCE:												
Health Staff												
Volunteer												
Relative												
Neighbour												
Radio/TV												
Newspaper/Poster												
Others												
Did not receive												
Do not know												
Does anyone in the household know:												
1. 3 doses of DPT vaccine Yes/No												
2. Birth spacing Yes/No												
3. Need of clean delivery Yes/No												
4. Recognition of pneumonia* Yes/No												
5. Reognition of dehydration** Yes/No												

* Recognition of pneumonia by fast-breathing with or without chest-indrawing in a child having cough and cold

** Signs of dehydration are thirst, sunken eyes, dry tongues, lips, restlessness.

Date :

Name and signature of investigator

Form No. 11

National Child Survival and Safe Motherhood Programme

CLUSTER SUMMARY FORM FOR LAME CHILDREN

Cluster No.	No. of Households visited	No. of Children under 5 years	No. of children lame	No. of lame due to polio	Immunisation Status of Polio cases at occurance	
					Immunized (3 doses of OPV)	Unimmu-nized (<3 doses)
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30.						
Total						

LAMENESS SURVEY

Annexure II

One of the major aims in providing immunization coverage is to reduce incidence of vaccine preventable diseases. You can collect information on the number of cases of these diseases by using various methods. These are discussed in the module "Conduct Disease Surveillance".

One of the vaccine preventable diseases which leaves a sequelae and which is easily identifiable even by lay people, is poliomyelitis. By collecting information on the lame children over the years you can get useful information which will help you evaluate your programme. You already have baseline information on the incidence rate of poliomyelitis in your State prior to the polio immunization services based on the large scale surveys on poliomyelitis conducted in 1981 and 1982 (Annexure V).

On an average 150 to 200 children per 100,000 under fives would develop paralytic poliomyelitis **every year** if there was no polio immunization programme. During a five year period, you would thus have 750 to 1000 children with poliomyelitis in the same population. In other words, for every 10,000 children you would find at least 70 lame children if the immunization coverage in your area was low.

If you decide to do the lameness survey, you will use Form-1 and Form-2 at the time of the household survey. The list of lame children with the actual numbers will be included in Form-2. The number of lame children you determine will be related to the total number of children under-5 years, you will determine using Form-1.

While analyzing results of lameness survey you would therefore be interested in the total number of lame children detected by you. Check the year when children developed paralysis. If more than 2 children with poliomyelitis had developed the disease in the last two years, this should be a warning. You must carry out a more detailed epidemiological investigation. You should carry out a similar investigation if you find any lame child with a history of having received OPV 3 during the last 12 months.

The numbers you have surveyed under coverage evaluation survey is, however, too small to obtain statistically valid rates of incidence.

Using the same methodology and forms you can carry out an independent lameness survey with a larger sample size. the total number of children under 5 years surveyed should be at least 10,000 i.e. 334 per cluster.

You must also share your findings with the State and Central departments of health. The data from a number of surveys could be pooled and analyzed for more details. This will help understand the epidemiology and therefore activities for eradication of poliomyelitis can be carried out better.

FORM NO. 12

CLINICAL OBSERVATION OF LAME CHILDREN

(To be completed by the Medical Officer for all lame children between 0 and 5 years of age (a separate form for every lame child).

I. General Information

1. State/U.T._____
2. District _____
3. Town (Mohalla)/PHC(Village)_____
4. Cluster No._____
5. Line List No. _____ _____

II. Background Information on Lame Child

1. Name of Child_____ 2. Sex _____
3. Father's Name_____ 4. Head of Household_____
5. Date of Birth of Child _____ 6. Address of Child_____
7. Person Interviewed _____
8. Relationship of person interviewed to child_____

III. History of illness resulting in Lameness of the child

1. Date of onset of lameness _____
2. Address of child at onset of lameness:

   a. Village_____
   b. District _____
   c. Outside district surveyed - YES/NO

3. Number of doses of polio vaccine received by child proceeding onset of lameness: (a) one, (b) two, (c) three, (d) more, (e) none.
4. Medical care during illness resulting in lameness (circle correct answer):
   a) Registered physician (Allopathic/Ayurvedic/Homeopathic)
   b) Health Centre
   c) Un-registered physician
   d) Other (please specify)

5. Did the child have fever at the time of the onset of lameness? YES/NO
6. Was the onset of the lameness acute? YES/NO
7. Did the lameness progress (increase) after onset? YES/NO
8. For how many days did it progress? Number:
9. Any history of injury (including injections) prior to the illness? YES/NO
10. Mental retardation associated with lameness? YES/NO

IV. Physical Examination of child (Circle correct answer)

1. Paralysis of lower limb present YES/NO
2. Affected limb:

	Right	Left
Upper		
Lower		

3. Type of paralysis present: Flacid Spastic
4. Sensation in affected limbs: Normal Impaired
5. Muscle atrophy (wasting) in affected limb - YES/NO
6. Gait: Normal/impaired/requires assistance - Unable to evaluate

V. Evaluation of Lameness (Circle appropriate answer)

1. Lameness not present
2. Lameness present
   a) Does not require mechanical aid to walk
   b) Requires mechanical aid to walk
   c) Unable to walk

VI. Physician's Diagnosis on Cause of Lameness

1. Poliomyelitis _____
2. Trauma (please specify) _____
3. Congenital deformity (Please specify)_____
4. Other (please specify) _____

Date of Investigation _____ Investigator's Name: _____

NEONATAL TETANUS MORTALITY SURVEY

Many methods can be used to collect information on the number of cases of neonatal tetanus. These methods have been discussed in the module 'conduct disease surveillance'.

By investigating all neo-natal deaths, the mortality due to neonatal tetanus can be estimated. The case investigation form of neonatal deaths is annexed as Form No. 13. The statewise neonatal tetanus mortality rate per 1000 live births based on large scale surveys has been done in 1981. The mortality rate ranged from 2.0 in Kerala to 66.7 in Uttar Pradesh per 1000 live births (see Annexure VI).

While filling in the household tally marking form, it is possible to register neonatal deaths in every household by asking questions on live birth and death within 1 month of birth. However, the number you would survey while doing a service coverage, as described in this module, would be too small to give statistically valid rates of incidence.

Using the 30 cluster sampling methodology you can carry out an independent neonatal tetanus survey with a larger sample size. The sample size would depend on the past estimates of disease incidence in the area as well as the magnitude of change in incidence following immunization.

National Child Survival & Safe Motherhood Programme **Form No. 13**

Investigation of Neonatal Deaths

To be completed by the MO on all infants who died within the 1st month of life.

I. General Information

1.State/U.T_____
2.District_____
3.Town(Mohalla)/PHC(Villaage)/Ward_____
4.Physician's name _____
5.Dateofinvestigation_____

II. Background Information on Neonatal Death

1.Name of Child _____
2.Sex _____
3.Father's Name_____
4.Address of child _____
5.Date of birth of child _____
6.Person interviewed by the Investigator _____
7.Relationship of person interviewed to child _____
8.Date of death of child_____

III. Mother's Immunization History

1.Does the mother know about vaccination with TT? YES NO
2.No of doses received during this pregnancy? [0] [1] [2] [3]
3.Date of last dose of TT_____
4.Card entry verified YES NO

IV. Infants Care since Birth (please circle appropriate answer)

1.Where was the child delivered? Hospital/Health Centre/Home/In the Fields/Other (please specify)----------
2.Who delivered the child ? Doctor/LHV/ANM/Tr.TBA/Untr.Dai/Family members/Other (please specify)-------
3.How was the cord cut? Sterile /unsterile (unboiled) Instrument
4.How was the cord dressing done? (use code +)[7]
5.When the child became ill, who treated the child? (use code ++)[8]
6.When was the child initiated on breast-milk? within 2 hrs / 2-4 hrs / 4-8 hrs / 8-24 hrs / 24-48 hrs / > 48 hrs.

V. Symptoms preceeding infant's death (please circle appropriate answer)

1.Was the infant able to suck the milk after birth? YES NO
2.Did the infant stop sucking milk when illness began? YES NO
3.Did the infant have a fever? YES NO
4.Did the infant have convulsions? YES NO
5.Was the infant noted to be stiff? YES NO

VI. Other Information on Mother

1.Is the mother alive? YES NO
2.Ifdead,dateofdeath_____
3.Symptoms preceeding death _____

VII. Medical Officer's Diagnosis

1.Cause of Neonatal Death_____
2.CauseofMother'sDeath_____

Date of Reporting: _____ Investigator's Name: _____

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[7] a=oil, b=cowdung, c=gentian violet, d=antibiotic, e=none and f=other

[8] a=govt. health centre, b=reg physician (allopathic/ayurvedic/ homeopathic), c= unregistered physician and d + no treatent received

LOCAL EVENTS CALENDAR

FESTIVALS & LOCAL EVENTS	1987	1988	1989	1990	1991	1992	FESTIVALS & LOCAL EVENTS	1987	1988	1989	1990	1991	1992
New Year's Day	1 Jan	1 Jan	1 Jan	1 Jan	1 Jan	1 Jan	PURNIMA (Full Moon) O	11 Jun	31 May	19 Jun	8 Jun	27 Jun	11 Jun
AMAVASYA (New Moon) O			7 Jan		15 Jan	4 Jan	AMAVASYA (New Moon) O	26 Jun	14 Jun	3 Jul	22 Jun	11 Jul	30 Jun
Lohri	13 Jan	13 Jan	13 Jan	14 Jan	13 Jan	13 Jan	PURNIMA (Full Moon) O	11 Jul	29 Jun	18 Jul	8 Jul	26 Jul	14 Jul
Pongal					14 Jan	14 Jan	AMAVASYA (New Moon) O	25 Jul	13 Jul	1 Aug	22 Jul	10 Aug	29 Jul
Guru Govind Singh B'day	6 Jan/26 Dec		14 Jan	3 Jan	24 Dec	12 Jan	Teej	29 Jul	15 Aug	4 Aug	24 Jul		
Republic Day	26 Jan	26 Jan	26 Jan	26 Jan	26 Jan	26 Jan	PURNIMA (Full Moon) O		29 Jul			25 Aug	13 Aug
PURNIMA (Full Moon) O	15 Jan	4 Jan	21 Jan	11 Jan	30 Jan	19 Jan	Id-ul-Zuha(Bakri Id)	7 Aug	28 Jul	18 Jul	8 Jul	23 Jun	12 Jun
AMAVASYA (New Moon) O	29 Jan	19 Jan	6 Feb	25 Jan	14 Feb	3 Feb	AMAVASYA (New Moon) O		12 Aug				
Basant Panchami	3 Feb	23 Jan	10 Feb	31 Jan	21 Jan	9 Feb	Independence Day	15 Aug	15 Aug	15 Aug	15 Aug	15 Aug	15 Aug
PURNIMA (Full Moon) O	13 Feb	2 Feb	20 Feb	9 Feb	28 Feb	18 Feb	Muharram	27 Aug	15 Aug	4 Aug	24 Jul	22 Jul	12 Jul
Shiv Ratri	26 Feb	16 Feb	6 Mar	24 Feb	12 Feb	3 Mar	Naag Panchami	31 Jul	17 Aug	6 Aug	26 Jul	14 Aug	
AMAVASYA (New Moon) O	27 Feb	17 Feb	7 Mar	25 Feb	16 Mar	4 Mar	Raksha Bandhan (PURNIMA-Full Moon) O	9 Aug	27 Aug	17 Aug	6 Aug	25 Aug	13 Aug
Holi (PURNIMA-Full Moon) O	15 Mar	3 Mar	21 Mar	10 Mar	28 Feb	18 Mar	Janam Ashtami	16 Aug	3 Sep	24 Aug	14 Aug	1 Sep	21 Aug
Dhulendi (HOLA)	16 Mar	4 Mar	22 Mar	11 Mar	1 Mar	19 Mar	AMAVASYA (New Moon) O	24 Aug	11 Sep	31 Aug	20 Aug	8 Sep	28 Aug
AMAVASYA (New Moon) O	29 Mar	18 Mar	6 Apr	26 Mar	14 Apr	3 Apr	Anant Chaudasi	6 Sep	24 Sep	14 Sep	4 Sep	22 Sep	
Good Friday	17 Apr	1 Apr	24 Mar	13 Apr	29 Mar	17 Apr	PURNIMA (Full Moon) O	7 Sep	25 Sep	15 Sep	5 Sep	23 Sep	12 Sep
Ram Navami	7 Apr	26 Mar	14 Apr	3 Apr	24 Mar	11 Apr	AMAVASYA (New Moon) O	23 Sep	10 Oct	29 Sep	18 Sep	7 Oct	26 Sep
Mahavir Jayanti	12 Apr	31 Mar	18 Apr	7 Apr	28 Mar	15 Apr	Gandhi Jayanti	2 Oct	2 Oct	2 Oct	2 Oct	2 Oct	2 Oct
PURNIMA (Full Moon) O	14 Apr	2 Apr	21 Apr	10 Apr	28 Apr	17 Apr	Shradh	22 Sep	10 Oct	29 Sep	18 Sep		
Baisakhi	13 Apr	13 Apr	13 Apr	13 Apr	13 Apr	13 Apr	Navratri	20 Oct	19 Sep	8 Oct	27 Sep	8 Oct	
AMAVASYA (New Moon) O	28 Apr	16 Apr	5 May	25 Apr	14 May	2 May	Dussehra	2 Oct	20 Oct	10 Oct	29 Sep	17 Oct	6 Oct
BUDH PURNIMA (Full Moon) O	13 May	1 May	20 May	9 May	28 Mar	16 May	Maharishi Valmiki's B'day (PURNIMA-Full Moon) O	7 Oct	25 Oct	14 Oct	4 Oct	23 Oct	11 Oct
AMAVASYA (New Moon) O	27 May	15 May	3 Jun	24 May	12 Jun	1 Jun	Diwali (AMAVASAYA-New Moon) O	22 Oct	9 Nov	29 Oct	18 Oct	6 Nov	25 Oct
Guru Arjan Dev's Shahidi Din	11 May	19 May	7 Jun	28 May	15 Jun		Gobardhan Pooja	23 Oct	10 Nov	30 Oct	19 Oct	7 Nov	
Id-ul-Fittar (Ramzan Id)	30 May	18 May	7 May	27 Apr	16 Apr	4 Apr	Bhaiya Dooj	24 Oct	11 Nov	31 Oct	30 Oct	8 Nov	27 Oct
Nirjala Ekadashi	8 Jun	26 Jun			22 Jun		Guru Nanak's B'day (PURNIMA-Full Moon) O	5 Nov	23 Nov	13 Nov	2 Nov	21 Nov	10 Nov

ANNEXURE-Va

ANNUAL INCIDENCE RATE OF POLIOMYELITIS[9]

PER 1000 CHILDREN 0 TO 4 YEARS (Based on sample surveys 1981-1982)

State/UT	Incidence Rate per 1000 children	
	Rural	Urban
Andhra Pradesh	1.7	1.4
Gujarat	2.5	2.2
Haryana, Punjab	3.1	1.7
Chandigarh		
Karnataka, Goa	1.2	1.2
Madhya Pradesh (Bhopal & Jabalpur Divisions)	1.9	1.7
Maharashtra	1.4	1.3
Orissa	0.8	0.7
Rajasthan (Jaipur Division)	3.1	2.5
Tamil Nadu & Pondicherry	1.9	2.1
Uttar Pradesh (Allahabad Division)	2.3	1.6
West Bengal	0.8	1.0
Delhi	--	1.6
ALL INDIA	**1.7**	**1.6**

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[9] This survey was carried out when the EPI programme was still in its infancy. Therefore, it is presumed that the above incidence rates for poliomyelitis will be true if immunization coverage in a population were near - zero.

ANNUAL NEONATAL TETANUS MORTALITY RATE[10]
PER 1000 LIVE BIRTHS (Based on sample surveys 1981-1982)

State/UT	Incidence Rate per 1000 children	
	Rural	**Urban**
Andhra Pradesh	6.8	2.7
Bihar	11.3	5.3
Gujarat and D & N Haveli	5.8	1.9
Haryana, Punjab		
Chandigarh	8.4	3.1
Karnataka & Goa	5.1	1.6
Kerala	2.0	1.9
M.P. (Bhopal & Jabalpur)	20.4	1.4
Maharashtra	4.1	4.9
Orissa	8.6	2.0
Rajasthan (Jaipur Division)	13.5	3.4
Tamil Nadu & Pondicherry	4.9	--
UP (Allahabad)	66.7	15.3
West Bengal	11.9	0.5
Delhi	--	1.0
ALL INDIA	**13.3**	**3.2**

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[10] This survey was carried out when the EPI programme was still in its infancy. Therefore, it is presumed that the above incidence rates for neo-natal tetanus will be true if immunization coverage in a population were near - zero.

Education is empowerment. Every girl and boy must be helped to complete atleast primary education in school. This will facilitate attainment of good health. In this endeavour all of us can contribute and make a difference.

You can make a big difference if you.....

- **ask every family you meet during your health work, whether their children are in primary school;**
- **persuade them to send all their children including girls, to attend and complete primary school, if they are not in school;**
- **identify the primary school teachers of the villages covered by you;**
- **facilitate communication between the family and the school teacher whenever possible;**
- **encourage all functionaries working with you to actively promote school attendance and completion of primary school; ask them regularly, what they have done;**
- **include a panel/discussion on primary education whenever you organize a health exhibition/camp.**